

"T BY 2000"
INDIANA LAKE AND RIVER ENHANCEMENT
DESIGN REPORT

SHIPSHEWANA LAKE
DREDGING PROJECT

APRIL 1998

Prepared For:

Indiana Department of Natural Resources
Division of Soil Conservation
402 West Washington Street, Room W-265
Indianapolis, Indiana 46204-2748

Prepared By:

F. X. Browne, Inc.
P. O. Box 401
Lansdale, PA 19446

MUC 0405001120070

1.0 Introduction & Project Description

1.1 Introduction

Shipshewana Lake is approximately 205 acres in size and was created in the early 1960's through the installation of a sheet pile dam. This dam discharges into Page Ditch, which is the only lake outlet. The lake has two inlets: Mud Lake Ditch on the west side of the lake and the Sarah Davis Ditch on the south side. Shipshewana Lake is located in LaGrange County, Newbury Township, Indiana. The legal description of the project area is NE and SW Quarter Sections of the Shipshewana USGS Quadrangle, Township 37 (North and South), 8E Range, Section 4T. A project location map is provided in Appendix A.

The Shipshewana Lake watershed encompasses approximately 4,675 acres, with predominantly agricultural land uses. However, low density residential use is increasing. The land adjacent to the lake is heavily developed with single family residences and a church camp. The eastern shore was developed in the mid 1960's. At that time, the marsh that existed at the mouth of Mud Lake Ditch was filled in with material dredged from the lake. The northeastern shoreline was developed in the late 1960's and was originally used for pasture land. Three channels have been excavated at the north end of the lake for access to new development.

1.2 Reason and Purpose for the Project

Since the late 1970s the water quality and general condition of Shipshewana Lake has declined dramatically. In 1986 the lake was classified as a *Class Three Lake*, which is considered an advanced eutrophic lake of the lowest quality (Indiana Department of Environmental Management, Indiana Lake Classification System and Management Plan). It was classified this way due to a total phosphorus concentration of 0.045 mg/l and a Secchi disc transparency of 3 feet. A Eutrophication Index value of 51 was calculated for the lake (scale 0-75). In addition, extreme blue-green algae blooms are common during the growing season resulting in Secchi disc transparency readings of 0.5 feet.

A thick, unconsolidated layer of organic sediment exists on the lake bottom. During the peak growing season, anoxic conditions persist in the bottom waters of the lake. The anoxic conditions allow for the internal release of phosphorus from the sediments into the water column. As a result of the hyper-eutrophic conditions of the lake, lake use has suffered, swimming has been banned, boating is hampered due to algae scums and fishing has declined. The receiving streams (Page Ditch, Pigeon River) are impacted as well.

This entire Shipshewana Lake Restoration Project proposes several Best Management Practices (BMPs) to address water quality problems including shoreline stabilization, dredging, and two constructed wetlands. This report addresses the dredging portion of the overall project. Dredging lake sediments will deepen the lake and will remove nutrient-laden sediments from the lake bottom.

1.3 Project Approach & Project Plans

Shipshewana Lake will be dredged using a hydraulic dredge. Sediments will be pumped from the dredge to a sediment dewatering unit that will be located in an adjacent farm field. The sediments will then be either spread out on the farm field or trucked to an off-site location. Clean water leaving the sediment dewatering unit will be returned to Shipshewana Lake. Based on bathymetric evaluations of Shipshewana Lake, it is estimated that the lake contains over 1,600,000 cubic yards of unconsolidated sediments. Due to limited funds, only 200,000 cubic yards of sediment will be removed by dredging at this time.

During the design stages of this project, sediment dewatering using an upland disposal basins was evaluated and rejected due to the high estimated construction costs for construction of the basins, land rental costs (22 acres for at least 3 years), concerns regarding the length of time it would take for the sediment to dewater sufficiently to support farming, and concerns of a 17 foot berm close to residential homes. Therefore, sediment dewatering using mechanical dewater equipment was evaluated. The project was bid based on hydraulic dredging and mechanical sediment dewatering.

Dredging will occur primarily in two separate areas of the lake as shown on the plans. Dredging operations will not occur in areas of emergent vegetation and within the limits shown in the maps attached to the IDNR permit.

Construction Drawings, Contract Documents, and Technical Specifications were developed for this project and are included with this report. The project was put out to bid on March 6, 1998 and bids were due on March 28th. Construction is expected to begin by the end of April 1998, and construction is expected to be completed by the end of November 1998.

2.0 Permits, Erosion Control Notes, Maintenance, Inspection, & Monitoring

2.1 Permit Descriptions

The following permits are required for this project:

- We received a Public Freshwater Lake Approval from the Indiana Department of Natural Resources. This permit is included in Appendix B-1.
- We received Section 401 Water Quality Certification for the project on February 23, 1998 from the Indiana Department of Environmental Management. A copy of the water quality certification letter is provided in Appendix B-2.
- We received Indiana Department of Natural Resources (IDNR), Division of Historic Preservation and Archeology clearance for the project on January 30, 1997. The approval letter is included in Appendix B-3.

- We submitted an Army Corps of Engineers Individual Permit for the project. A copy of the draft permit was received on April 13, 1998 and is included in Appendix B-4.
- An erosion and sediment control plan was submitted to the LaGrange County Conservation District on April 8, 1998. When approval has been granted, we will send a copy of the approval letter to you.
- An NOI letter and short project description was submitted to the Indiana Department of Environmental Management (IDEM) to comply with 327 IAC 15- on April 8, 1997. The NOI letter, public notice, and certification statement is included in Appendix B-5.
- All landowners and adjoining landowners were notified about the project by certified mail in October 1996, and then by a public notice in the Goshen News on June 18, 1997. The IDNR permit application contained a copy of each "green card".

2.2 Erosion Control

The following stages of earth moving were included on the Erosion and Sedimentation Control Plans in addition to the standard erosion and sediment control notes. These plans will be followed by the Shipshewana Lake Improvement Association and their chosen contractors:

SHIPSHEWANA LAKE DREDGING PROJECT STAGES OF EARTH MOVING ACTIVITIES

1. Prior to any earth disturbance, the contractor shall contact the Indiana one-call system to locate any utility lines in the project area and shall also contact the LaGrange County conservation district as specified in the approved erosion and sediment control plan.
2. Install the construction entrance to access the sediment dewatering area.
3. Improve the proposed construction access route 1000W and the sediment dewatering area, as necessary.
4. Position the field office and the dewatering system in the sediment dewatering area.
5. Install silt fencing and rock filter outlet downslope of the sediment disposal area as shown on the plans.
6. Install the proposed return water pipeline and the riprap pad.

7. Install the proposed dredge discharge pipeline.
8. Clear the dredge access area, if necessary, and install any soil erosion and sediment control measures necessary. Deliver the dredge to the lake.
9. Install the floating turbidity barrier upstream of the dam as shown on the plans to prevent sediment from traveling into page ditch.
10. Connect the pipeline from the dredge to the proposed dredge discharge pipeline and commence dredging operations.
11. Dewater the dredged sediment and grade the dewatered sediment according to the sediment disposal area final grading plan.
12. Stockpile excess dewatered sediment as shown on the erosion and sediment control plan. The owner will be responsible for ultimate removal of the stockpiled sediment.
13. When the dredging operation is complete, remove the dredge discharge pipeline, the return water pipeline, the pipe anchors, and the riprap apron.
14. Complete the grading of the sediment disposal area. Fine grade the sediment disposal area. Perform all other restoration activities and stabilize all disturbed areas with permanent vegetation by 12-31-98.
15. Erosion control measures are to remain in place until all disturbed areas are stabilized to prevent erosion.
16. Silt and safety fencing shall be removed after final grading and seeding operations are complete and permanent vegetation has been established. Trapped sediment shall be distributed on site.

Note: No area shall be exposed for a period of twenty (20) or more days unless erosion control measures are implemented or temporary seeding of the area is completed.

2.3 Maintenance Plan

A maintenance plan for the Shipshewana Lake Dredging project is not applicable. However, continual implementation of agricultural best management practices throughout the watershed and the installation and maintenance of the two proposed constructed wetland areas (at the school site and on the Sara Davis Ditch) will help to reduce sediment and nutrient loadings to Shipshewana Lake. In the future, if money becomes available, additional dredging may occur.

2.4 Construction Inspection & Administration

Construction inspection for this dredging project will be provided on a part-time basis. The construction inspector will stake out all areas that are available for dewatering and will monitor dredging and dewatering operations on an intermittent basis. The construction inspector will be available to answer questions from the contractor and will provide construction administration services including review of shop drawings, review of monthly invoices, review of any change orders, and other standard construction administrative services. Monthly meetings will be held with the contractor, if necessary, to ensure that the project is running smoothly.

2.5 Post Monitoring Plan

A minimal post monitoring plan is proposed for Shipshewana Lake to monitor the effects of dredging on lake water quality. Secchi disk depth, total phosphorus, and chlorophyll *a* will be measured at one location in the lake during June, July and August each year after dredging for a period of three years. Secchi disk depth, total phosphorus, and chlorophyll *a* will be compared to pre-dredging water quality data and trend graphs will be prepared.

3.0 Hydraulic Dredging Design

3.1 Design Considerations

Since mechanical sediment dewatering will be used to dewater sediment, rather than upland sediment disposal basins, minimal engineering design was required for this project. During the initial stages of this project, geotechnical investigations were conducted and sediment disposal basins were designed. However, based on estimated project costs using this option and on learning about mechanical sediment dewatering that could reduce project costs and potential liabilities, the project was ultimately designed around the use of mechanical sediment dewatering equipment.

The dredging plan was designed so that approximately 200,000 cubic yards of sediment will be removed from the lake. Areas of emergent vegetation will remain undisturbed by the dredging operations. In addition, an approximate 300 foot wide area along the western shoreline of the lake will remain undisturbed to ensure that a surface water/groundwater connection is not created by the dredging operations.

Unconsolidated sediment will be pumped to a sediment dewatering area in a farm field along the eastern side of the lake near the Mud Lake Ditch Inlet. The dredged slurry will be delivered to a mechanical dewatering unit that will dewater the sediments. The clean water will be returned to the lake via the existing culvert under Fourth of July Avenue in Mud Lake Ditch.

3.2 Land Rights

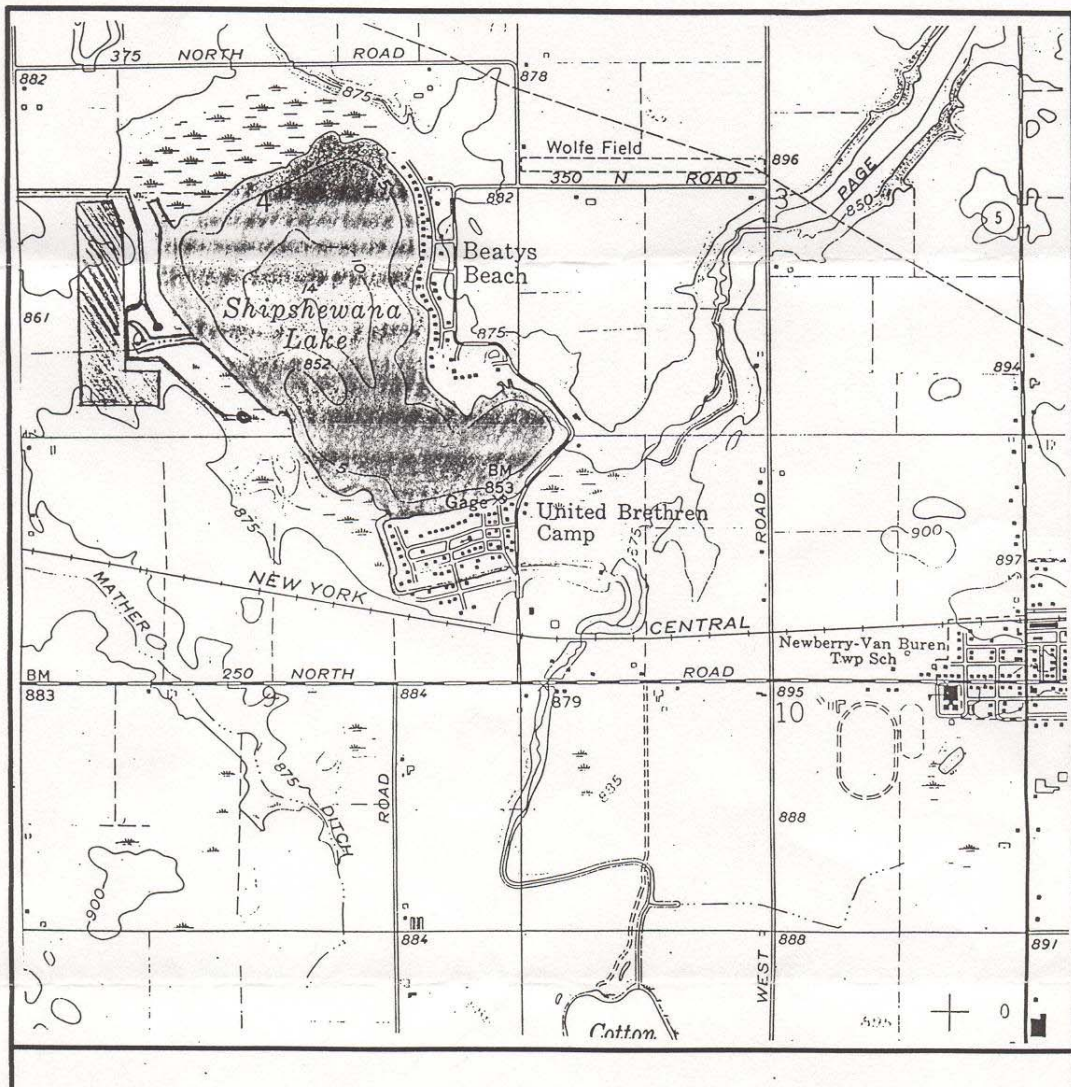
Easements for the use of the sediment dewatering and disposal area are being obtained by the Shipshewana Community Lake Improvement Association.

3.3 Construction Cost Estimate

The Construction cost for the dredging project is listed below and is based on the low bid received on March 28, 1998.

<u>Hydraulic Dredging and Dewatering</u>	<u>Cost</u>
Construction	\$1,553,480
Construction Inspection & Engineering	15,000
Construction Administration	<u>5,000</u>
TOTAL	\$1,573,480

APPENDIX A
LOCATION MAP



LOCATION MAP
 U.S.G.S. QUADRANGLE: SHIPSEWANA, IN
 SCALE: 1"=2000'

APPENDIX B-1

IDNR PUBLIC FRESHWATER LAKE APPROVAL

STATE OF INDIANA
DEPARTMENT OF NATURAL RESOURCES

NOV 17 1997

CERTIFICATE OF APPROVAL
PUBLIC FRESHWATER LAKE

APPLICATION #: PL-17,453

LAKE : Shipshewana Lake

APPLICANT : Shipshewana Community Lake
Improvement Association
Michael Martin, President
3485 North 980 West
Shipshewana IN 46565

AGENT : F.X. Browne, Inc.
Donna L. Hegge
P.O. Box 401
Lansdale PA 19446

AUTHORITY : IC 14-26-2 with 310 IAC 6-2

DESCRIPTION : Shipshewana Lake will undergo maintenance dredging within the entire lake, except in areas supporting lilies and emergent vegetation as highlighted on the attached map marked with "X's". Additionally, the maximum depth of the dredging will be limited to 6 feet below the lake's legal level in areas highlighted on the attached map marked with "O's". In total, approximately 350,000 cubic yards of accumulated sediments, muck and debris will be removed from the lake bed by hydraulic dredging to a depth of 6' to 16' below the lake's legal level. The excavated material will be transported to an upland containment area for dewatering and disposal. Water from the containment area will be allowed to return to the lake via gravity flow through a pipeline. Details of the project are contained in plans and information received at the Division of Water on July 7, 1997, September 2, 1997, October 9, 1997 and November 4, 1997.

LOCATION : Near Shipshewana, Newbury Township, LaGrange County
Section 4, T 37N, R 8E, Shipshewana Quadrangle
UTM Coordinates: Downstream = 4617675 North, 615350 East, Upstream = 4615100 North, 616675 East

APPROVED BY : Lori F. Kaplan
Lori F. Kaplan
Deputy Director
Department of Natural Resources

APPROVED ON : November 14, 1997

Attachments: Notice Of Right To Administrative Review
General Conditions
Special Conditions
Service List

STATE OF INDIANA
DEPARTMENT OF NATURAL RESOURCES

NOTICE OF RIGHT TO ADMINISTRATIVE REVIEW

APPLICATION #: PL-17,453

This signed document constitutes the issuance of a permit by the Natural Resources Commission, or its designee, subject to the conditions and limitations stated on the pages entitled "General Conditions" and "Special Conditions".

The permit or any of the conditions or limitations which it contains may be appealed by applying for administrative review. Such review is governed by the Administrative Orders and Procedures Act, IC 4-21.5, and the Department's rules pertaining to adjudicative proceedings, 312 IAC 3-1.

In order to obtain a review, a written petition must be filed with the Division of Hearings within 18 days of the mailing date of this notice. The petition should be addressed to:

Mr. Stephen L. Lucas, Director
Division of Hearings
Room W272
402 West Washington Street
Indianapolis, Indiana 46204

The petition must contain specific reasons for the appeal and indicate the portion or portions of the permit to which the appeal pertains.

If an appeal is filed, the final agency determination will be made by the Natural Resources Commission following a legal proceeding conducted before an Administrative Law Judge. The Department of Natural Resources will be represented by legal counsel.

STATE OF INDIANA
DEPARTMENT OF NATURAL RESOURCES

GENERAL CONDITIONS

APPLICATION #: PL-17,453

- (1) If any archaeological artifacts or human remains are uncovered during construction, federal law and regulations (16 USC 470, et seq.; 36 CFR 800.11, et al) and State law (IC 14-21-1) require that work must stop and that the discovery must be reported to the Division of Historic Preservation and Archaeology within 2 business days.

Division of Historic Preservation and Archaeology

Room W274

402 West Washington Street

Indianapolis, Indiana 46204

Telephone: (317) 232-1646, FAX: (317) 232-8036

- (2) This permit must be posted and maintained at the project site until the project is completed.
- (3) This permit does not relieve the permittee of the responsibility for obtaining additional permits, approvals, easements, etc. as required by other federal, state, or local regulatory agencies. These agencies include, but are not limited to:

Agency

Detroit District, U.S. Army Corps of Engineers

Indiana Department of Environmental Management

Local city or county planning or zoning commission

Telephone Number

(313) 226-2218

(317) 233-2471

Check local directory

- (4) This permit must not be construed as a waiver of any local ordinance or other state or federal law.
- (5) This permit does not relieve the permittee of any liability for the effects which the project may have upon the safety of the life or property of others.
- (6) This permit may be revoked by the Department of Natural Resources for violation of any condition, limitation, or applicable statute or rule.
- (7) This permit shall not be assignable or transferable without the prior written approval of the Department of Natural Resources. To initiate a transfer contact:

Mr. John N. Simpson, PE, Director

Division of Water

Room W264

402 West Washington Street

Indianapolis, Indiana 46204

Telephone: (317) 232-4160, FAX: (317) 233-4579

- (8) The Department of Natural Resources shall have the right to enter upon the site of the permitted activity for the purpose of inspecting the authorized work.
- (9) The receipt and acceptance of this permit by the applicant or authorized agent shall be considered as acceptance of the conditions and limitations stated on the pages entitled "General Conditions" and "Special Conditions".

STATE OF INDIANA
DEPARTMENT OF NATURAL RESOURCES
SPECIAL CONDITIONS

APPLICATION #: PL-17,453

PERMIT VALIDITY: This permit is valid for 24 months from the "Approved On" date shown on the first page. If work has not been completed by November 14, 1999 the permit will become void and a new permit will be required in order to continue work on the project.

CONFORMANCE : Other than those measures necessary to satisfy the "General Conditions" and "Special Conditions", the project must conform to the information received by the Department of Natural Resources on: July 7, 1997, September 2, 1997, October 9, 1997 and November 4, 1997. Any deviation from the information must receive the prior written approval of the Department.

Number	Special Condition
--------	-------------------

- | | |
|-------|---|
| (1) | minimize the movement of resuspended bottom sediment from the immediate project area |
| (2) | if sediment is removed hydraulically and transported to an upland dewatering basin, adequate slurry detention time and sediment removal measures must be used to ensure that the water returned to the lake is not carrying excessive sediment back to the lake |
| (3) | revegetate all bare and disturbed areas landward of the shoreline with a mixture of grasses (excluding all varieties of tall fescue) and legumes as soon as possible upon completion |
| (4) | all excavated material must be properly spread landward of the shoreline on the property described on page 1 under "DESCRIPTION" or completely removed from the project site such that erosion and off-site sedimentation of the material is prevented |

STATE OF INDIANA
DEPARTMENT OF NATURAL RESOURCES

SERVICE LIST

APPLICATION #: PL-17,453

Shipshewana Community Lake
Improvement Association
Michael Martin, President
3485 North 980 West
Shipshewana IN 46565

F.X. Browne, Inc.
Donna L. Hegge
P.O. Box 401
Lansdale PA 19446

Regulatory Functions Branch
Detroit District, USACOE
c/o Mr. Gary Mannesto
P.O. Box 1027
Detroit MI 48231-1027

Division of Law Enforcement, IDNR
North Region Headquarters (Dist 2)
c/o Capt. Steven Seemeyer
RR 6, Box 344
Peru IN 46970

LaGrange County Plan Commission
100 North Detroit Street
Courthouse Annex
LaGrange IN 46761

Staff Assignment

Administrative: Markita L. Shepherdson
Technical : Chad A. Hoover
Environmental : Stephen H. Jose

APPENDIX B-2

IDEM SECTION 401 WATER QUALITY CERTIFICATION

MAR - 2 1998



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We make Indiana a cleaner, healthier place to live

JN1337-02
SKO/mem/OL

Frank O'Bannon
Governor

February 23, 1998

John M. Hamilton
Commissioner

100 North Senate Avenue
P.O. Box 6015
Indianapolis, Indiana 46206-6015
Telephone 317-232-8603
Environmental Helpline 1-800-451-6027

VIA CERTIFIED MAIL P 126 007 929

Mr. Thomas E. Allenson
Permit Evaluation Section A, Regulatory Branch
Construction-Operations Division, Detroit District Corps of Engineers
Box 1027
Detroit, Michigan 48231

Dear Mr. Allenson:

Re: Section 401 Water Quality Certification
Project: Shipshewana Lake and
Wetland Enhancement
IDEM ID Number: 97-44-BAC-00095-A
COE ID Number: 97-144-034-OA
County: Lagrange

Office of Water Management staff have reviewed the project described in the Public Notice for file number 97-144-034-OA dated December 17, 1998, for Section 401 Water Quality Certification. The applicant proposes to discharge fill associated with hydraulic dredging 350,000 cubic yards of sediment from 200 acres of Shipshewana Lake with contained disposal on adjacent upland farm fields; settled water from the disposal area would be returned through an existing culvert to Shipshewana Lake; excavation and redistribution of 1,440 cubic yards of material associated with the enhancement of 1.2 acres of existing wetland and adjoining upland for its enlargement to 2.0 acres; excavation and redistribution of 6,664 cut and 339 fill cubic yards of material from 0.10 acres of Sara Davis Ditch and adjoining upland to create 1.7 acres of wetland and pond area. The purpose of the work is to improve water quality and the recreational value of Shipshewana Lake and to create wildlife habitat and new environmental education opportunities.

Based on the site investigation conducted on January 29, 1998, and available information, it is the judgment of this office that the proposed project will comply with the applicable provisions of 327 IAC 2 and Sections 301, 302, 303, 306, and 307 of the Clean Water Act if the applicant complies with the conditions set forth below. Therefore, subject to the following conditions, the Indiana Department of Environmental Management (IDEM) hereby grants Section 401 Water Quality Certification for the project described in the Public Notice for File Number 97-144-034-OA dated December 17, 1998. Any changes in project design or scope not detailed in the application described above are not authorized by this certification.

General Conditions:

1. Physical disturbance of banks, soils, and vegetation shall be limited to that which is absolutely necessary to achieve the project purpose.
2. The contractor performing the actual operations must comply with Section 311 of the Federal Clean Water Act and with 327 IAC 2-6 (formerly Indiana Stream Pollution Control Board Regulation 330 IAC 1-6-1) concerning spills of oil and hazardous materials.
3. Deposition of dredged or excavated materials shall be carried out in such a manner that sediment run off to any water body is controlled. Areas used for deposition of dredged materials shall be diked or bermed. The dredged or excavated material shall be stabilized with seed and straw mulch upon completion of construction activities.
4. Appropriate erosion control methods shall be installed prior to any soil disturbance to prevent soil from leaving the construction site. Appropriate erosion control methods include, but are not limited to, straw bale barriers, silt fencing, erosion control blankets, phased construction sequencing, and earthen berms. Information and assistance regarding control of construction-related soil erosion are available from the Soil and Water Conservation District offices, collocated with the local field office of the USDA Natural Resources Conservation Service in each county, and the regional field offices of the Indiana Department of Natural Resources' Division of Soil Conservation, whose administrative office is at 402 W. Washington Street, Room W264, Indianapolis, IN 46204.

Project-Specific Conditions:

1. The project engineer at the construction site will ensure that construction limits shown in the plans attached to the correspondence of will be clearly marked at all times during construction.
2. The project engineer at the construction site will ensure that all erosion control structures and devices will be regularly monitored and maintained, especially after rain events, until all soils disturbed by construction activities have been permanently stabilized.
3. Physical disturbance of banks, submerged vegetation and riparian vegetation, especially large trees which provide shade to Shipshewana Lake, the Sara Davis Ditch, and wetlands associated with the project, should be limited to that which is absolutely necessary to the conduct of the project.
4. All attempts should be made to avoid and minimize impacts to wetlands.

Dredging should not impact the wetlands in and adjacent to Shipshewana Lake. Dredged material should be deposited on upland.

5. The wetland planting plan and success criteria shall be consistent with the plan submitted to this office attached to the correspondence sent by Ms. Donna Hegge of F.X. Browne, Inc. dated February 2, 1998.

This certification is effective 18 days from the mailing of this notice unless a petition for review and a petition for stay of effectiveness are filed within this 18 day period. If a petition for review and a petition for stay of effectiveness are filed within this period, any part of the permit within the scope of the petition for stay is stayed for 15 days, unless or until an Environmental Law Judge further stays the permit in whole or in part.

This decision may be appealed in accordance with IC 4-21.5, the Administrative Orders and Procedures Act. The steps that must be followed to qualify for review are:

1. You must petition for review in a writing that states facts demonstrating that you are either the person to whom this decision is directed, a person who is aggrieved or adversely affected by the decision, or a person entitled to review under any law.
2. You must file the petition for review with the Office of Environmental Adjudication (OEA) at the following address:

Office of Environmental Adjudication
ISTA Building
150 West Market Street
Suite 618
Indianapolis, IN 46204

3. You must file the petition within eighteen (18) days of the mailing date of this decision. If the eighteenth day falls on a Saturday, Sunday, legal holiday, or other day that the OEA offices are closed during regular business hours, you may file the petition the next day that the OEA offices are open during regular business hours. The petition is deemed filed on the earliest of the following dates: the date it is personally delivered to OEA; the date that the envelope containing the petition is postmarked if it is mailed by United States mail; or, the date it is shown to have been deposited with a private carrier on the private carrier's receipt, if sent by private carrier.

Identifying the permit, decision, or other order for which you seek review by permit number, name of the applicant, location, or date of this notice will expedite review of the petition.

Note that if a petition for review is granted pursuant to IC 4-21.5-3-7, the petitioner will, and any other person may, obtain notice of any prehearing conferences, preliminary hearings,

hearings, stays, and any orders disposing of the proceedings by requesting copies of such notices from OEA.

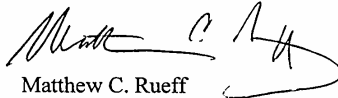
Granting of Section 401 Water Quality Certification does not relieve the applicant from the responsibility of obtaining any other permits or authorizations that may be required for this project or related activities from IDEM or any other agency or person.

Failure to comply with the Section 401 Water Quality Certification may result in enforcement action against the applicant.

If you have any questions about this certification, please contact Mr. Brett A. Crump, Project Manager, of my staff at 317/233-2475, or you may contact OWM through the IDEM Environmental Helpline (1-800-451-6027).

If you have procedural questions regarding filing a petition for review you may contact OEA at 317-232-8591.

Sincerely,



Matthew C. Rueff
Assistant Commissioner
Office of Water Management

cc: Mr. David Hudak, USFWS

Mr. Steve Jose, IDNR

Shipshewana Community Lake Improvement
3485 North 980 West
Shipshewana, IN

VIA CERTIFIED MAIL

F.X. Browne, Inc.
Attn: Ms. Donna L. Hegge
P.O. Box 401
Lansdale, PA 19446

Mr. & Mrs. Bob & Carolyn Butler
R#3, 114 Willow Run Drive
Monroeville, IN 46773

APPENDIX B-3

IDNR HISTORIC PRESERVATION AND ARCHEOLOGY CLEARANCE

JES
DLR
SF

INDIANA DEPARTMENT OF NATURAL RESOURCES

PATRICK R. RALSTON, DIRECTOR

Division of Historic Preservation
and Archaeology
402 W. Washington St., Rm. 274
Indianapolis, Indiana 46204
317-232-1646

January 30, 1997

Suzanne Forbes
F.X. Browne, Inc.
Post Office Box 401
Lansdale, Pennsylvania 19446

Dear Ms. Forbes:

We have reviewed the proposed stabilization of the western and northeastern shores of Shipshewana Lake, dredging of the lake and disposal of sediment, and the creation of wetlands northwest of Shipshewana in LaGrange County, Indiana.

As long as no structures will be demolished or removed, no known historical or architectural sites listed in or eligible for inclusion in the National Register of Historic Places will be affected by this project.

In light of the new information received by our office in the telephone conversation between Suzanne Forbes of F.X. Browne, Inc. and Sandra Walters of DHPA on January 3, 1997, all archaeological concerns have been addressed. Therefore, as long as the project remains within areas disturbed by previous construction no known archaeological sites listed in or eligible for inclusion in the National Register of Historic Places will be affected by this project.

However, if any archaeological artifacts or human remains are uncovered during construction, federal law and regulations (16 USC 470, et seq.; 36 CFR 800.11, et al.) and, additionally, state law (Indiana Code 14-21-1), require that work must stop and that the discovery must be reported to the Division of Historic Preservation and Archaeology within two (2) business days. Thank you for your cooperation.

If you have any further questions regarding the archaeological aspects of this project, please call Jim Mohow at (317) 232-1646. Thank you for your cooperation.

Very truly yours,

Patrick R. Ralston
State Historic Preservation Officer

PRR:SLW:MMD:smg

"EQUAL OPPORTUNITY EMPLOYER"



PRINTED ON RECYCLED PAPER

APPENDIX B-4

ACOE DRAFT PERMIT

DEPARTMENT OF THE ARMY
DETROIT DISTRICT, CORPS OF ENGINEERS
BOX 1027
DETROIT, MICHIGAN 48231-1027

IN1337-02
(Permitting file)
DLH
mrm
SKD

April 8, 1998

IN REPLY REFER TO

Construction-Operations Division
Regulatory Branch
File No. 97-144-034-0A

Michael Martin
Shipshewana Community Lake Improvement Association
3485 North 980 West
Shipshewana, Indiana 46565

Dear Mr. Martin:

We are enclosing two (2) copies of the draft Department of the Army permit for your signature. Your special attention is invited to the Special Conditions. PLEASE READ THESE AND ALL OTHER PERMIT CONDITIONS CAREFULLY BEFORE SIGNING. Your signature constitutes your specific agreement of all terms and conditions of the permit.

We require a fee of \$10.00 prior to final action on your permit request. Please make your check or money order payable to FAO, USAED, Detroit, and submit it together with both of your signed copies to our office. Upon receipt, the District Engineer or his designee is authorized to issue the permit on behalf of the Secretary of the Army by countersigning the draft permit. If issued, we will return one of the countersigned copies to you.

If the enclosed copies are not signed and returned within 30 days, we will suspend your application. Should you have any questions, please contact Thomas E. Allenson, Project Manager, at the above address or telephone (313) 226-2222. Please refer to File Number: 97-144-034-0A.

Sincerely,

ORIGINAL SIGNED BY

John Konik
Chief, Permit Evaluation Section A
Regulatory Branch

Enclosures

Copy Furnished:

F.X. Browne (Donna Hegge)

DEPARTMENT OF THE ARMY PERMIT

Permittee Shipshewana Community Lake Improvement

Permit No. 97-144-034-0

Issuing Office U.S. Army Engineer District, Detroit

NOTE: The term "you" and its derivatives, as used in this permit, means the permittee or any future transferee. The term "this office" refers to the appropriate district or division office of the Corps of Engineers having jurisdiction over the permitted activity or the appropriate official of that office acting under the authority of the commanding officer.

You are authorized to perform work in accordance with the terms and conditions specified below.

Project Description:

Discharge fill associated with hydraulic dredging of 350,000 cubic yards of sediment in 200 acres of Shipshewana Lake with contained disposal on adjacent upland, non-wetland farm lands, settled water from the disposal area would be returned through a riprap filled basin and then through existing culvert to Shipshewana Lake; excavation and redistribution of 1,440 cubic yards of material associated with the enhancement of 1.2 acres of existing wetland and adjoining upland for its enlargement to 2.0 acres; excavation and redistribution of 6,664 (cut) and 339 (fill) cubic yards of material from 0.10 acres of Sara Davis Ditch and adjoining upland to create 1.7 acres of wetland and pond area. The purpose of the work is to improve water quality and the recreational value of Shipshewana Lake and to create wildlife habitat and new environmental education opportunities.

Project Location:

in Shipshewana Lake, offshore property in Section 4,9,10, T37N, R8E, two miles west of Shipshewana, Indiana, and in Sara Davis Ditch in Section 10, T37N, R8E one half mile west of Shipshewana, Indiana, and in wetlands adjacent to a tributary of Sara Davis Ditch in Section 10, T37N, R8E in Shipshewana, Indiana.

Permit Conditions:

General Conditions:

1. The time limit for completing the work authorized ends on December 31, 2001. If you find that you need more time to complete the authorized activity, submit your request for a time extension to this office for consideration at least one month before the above date is reached.
2. You must maintain the activity authorized by this permit in good condition and in conformance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith transfer to a third party in compliance with General Condition 4 below. Should you wish to cease to maintain the

authorized activity or should you desire to abandon it without a good faith transfer, you must obtain a modification of this permit from this office, which may require restoration of the area.

3. If you discover any previously unknown historic or archeological remains while accomplishing the activity authorized by this permit, you must immediately notify this office of what you have found. We will initiate the Federal and state coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

4. If you sell the property associated with this permit, you must obtain the signature of the new owner in the space provided and forward a copy of the permit to this office to validate the transfer of this authorization.

5. If a conditioned water quality certification has been issued for your project, you must comply with the conditions specified in the certification as special conditions to this permit. For your convenience, a copy of the certification is attached if it contains such conditions.

6. You must allow representatives from this office to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished in accordance with the terms and conditions of your permit.

Special Conditions:

1. Your signature, as permittee, indicates that, as consideration for the issuance of this permit, you voluntarily accept and agree to comply with all of the terms and conditions of this permit.

2. Measures must be adopted to prevent potential pollutants from entering the watercourse. Construction materials and debris, including fuels, oil, and other liquid substances, will not be stored in the construction area in a manner that would allow them to enter the watercourse as a result of spillage, natural runoff, or flooding.

3. Sidecasting of dredged material or placement of fill material into the waterway or wetland for the purpose of operating and or placing dredging equipment is not authorized.

4. The permittee shall adhere to the conditions specified by the Indiana Department of Environmental Management (as attached) for waiver of Section 401 Water Quality Certification.

5. Existing water lily and bulrush beds in Shipshewana Lake shall not be dredged as shown on plans dated March 2, 1998.

Further Information:

1. Congressional Authorities: You have been so authorized to undertake the activity described above pursuant to:

() Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403).

(X) Section 404 of the Clean Water Act (33 U.S.C. 1344).

() Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972 (33 U.S.C. 1413).

2. Limits of this authorization.

- a. This permit does not obviate the need to obtain Federal, state, or local authorizations required by law.
- b. This permit does not grant any property rights or exclusive privileges.
- c. This permit does not authorize any injury to the property or rights of others.
- d. This permit does not authorize interference with any existing or proposed Federal project.

3. Limits of Federal Liability. In issuing this permit, the Federal Government does not assume any liability for the following:

- a. Damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes.
- b. Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United States in the public interest.
- c. Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit.
- d. Design or construction deficiencies associated with the permitted work.
- e. Damage claims associated with any future modifications, suspension, or revocation of this permit.

4. Reliance on Applicant's Data: The determination of this office that issuance of this permit is not contrary to the public interest was made in reliance of the information you provided.

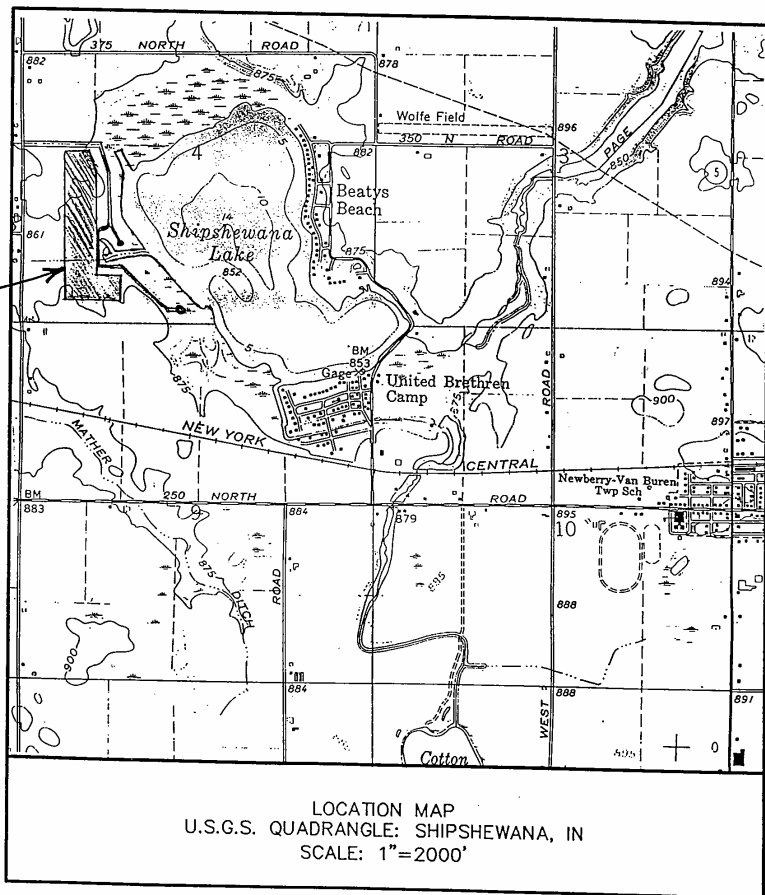
5. Reevaluation of Permit Decision. This office may reevaluate its decision on this permit at any time the circumstances warrant. Circumstances that could require a reevaluation include, but are not limited to, the following:

- a. You fail to comply with the terms and conditions of this permit.
- b. The information provided by you in support of your permit application proves to have been false, incomplete, or inaccurate (See 4 above).
- c. Significant new information surfaces which this office did not consider in reaching the original public interest decision.

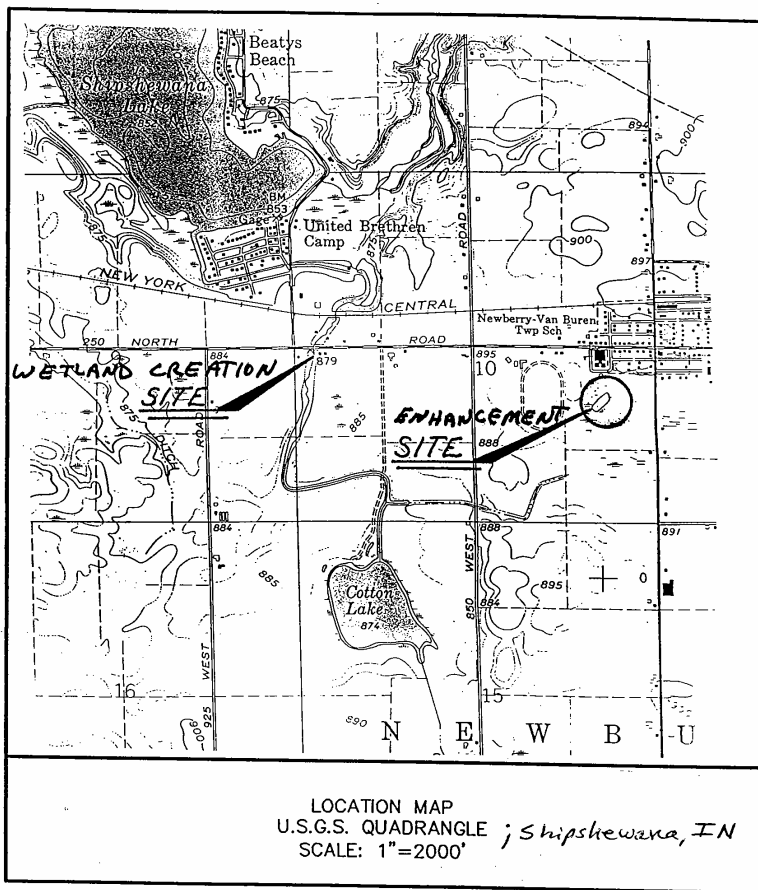
Such a reevaluation may result in a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in 33 CFR 325.7 or enforcement procedures such as those contained in 33 CFR 326.4 and 326.5. The referenced enforcement procedures provide for the issuance of an administrative order requiring you to comply with the terms and conditions of your permit and for the initiation of legal action where appropriate. You will be required to pay for any corrective measures ordered by this office, and if you fail to comply with such directive, this office may in certain situations (such as those specified in 33 CFR 209.170) accomplish the corrective measures by contract or otherwise and bill you for the cost.

6. Extensions. General condition 1 establishes a time limit for the completion of the activity authorized by this permit. Unless there are circumstances requiring either a prompt completion of the authorized activity or a reevaluation of the public interest decision, the Corps will normally give favorable consideration to a request for an extension of this time limit.

DREDGED
MATERIAL
DISPOSAL
SITE

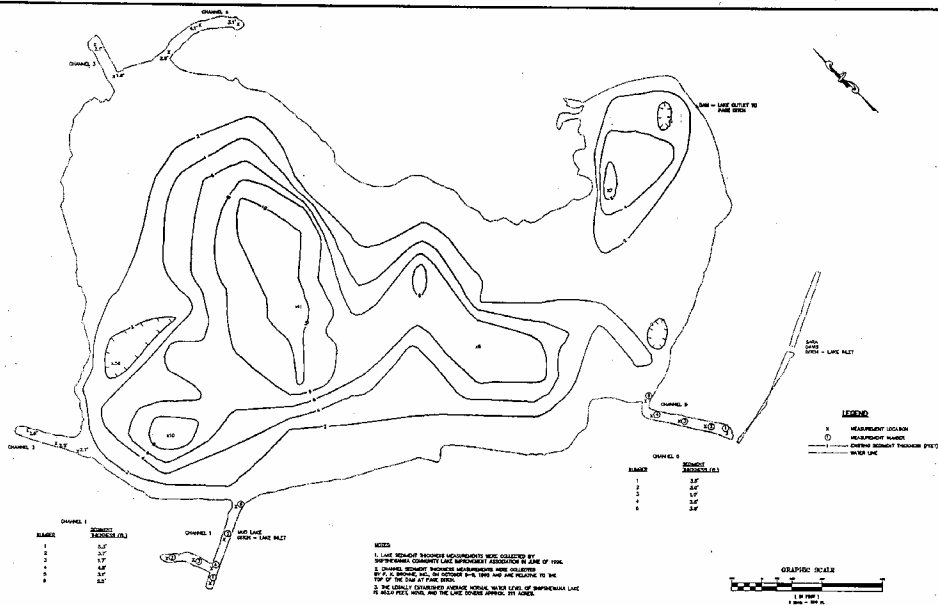


NUMBER: 97-144-034-0
 SHIPSHEWANA LAKE RESTORATION PROJECT
 BY: SHIPSHEWANA COMMUNITY LAKE IMPROVE
 SHIPSHEWANA LAKE, SHIPSHEWANA
 LAGRANGE COUNTY, INDIANA
 SHEET 1 OF 8/17



NUMBER: 97-144-034-0
 SHIPSHEWANA LAKE RESTORATION PROJECT
 BY: SHIPSHEWANA COMMUNITY LAKE IMPROVE
 SHIPSHEWANA LAKE, SHIPSHEWANA
 LAGRANGE COUNTY, INDIANA
 SHEET 2 OF 17

97-144-034-0
3617



F. X. BROWNE, INC.

ENGINEERS • PLANNERS • SCIENTISTS

LANSDALE, PA

MARSHALLS CREEK, PA

SARAHAC LAKE, NY

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DESIGNED BY D.L.H.
CHECKED BY M.M.M.
DRAWN BY K.M.S.
CHECKED BY D.L.H.
DATE 8-15-97

F. X. BROWNE
PROFESSIONAL ENGINEER
INDIANA LICENSE NO. 9600130
DATE 8-15-97

SHIPSHEWANA COMMUNITY LAKE
IMPROVEMENT ASSOCIATION
NEWBURY TOWNSHIP
LAGRANGE COUNTY, INDIANA

SHIPSHEWANA LAKE RESTORATION PROJECT
HYDRAULIC DREDGING
LAKE AND CHANNEL SEDIMENT THICKNESS PLAN

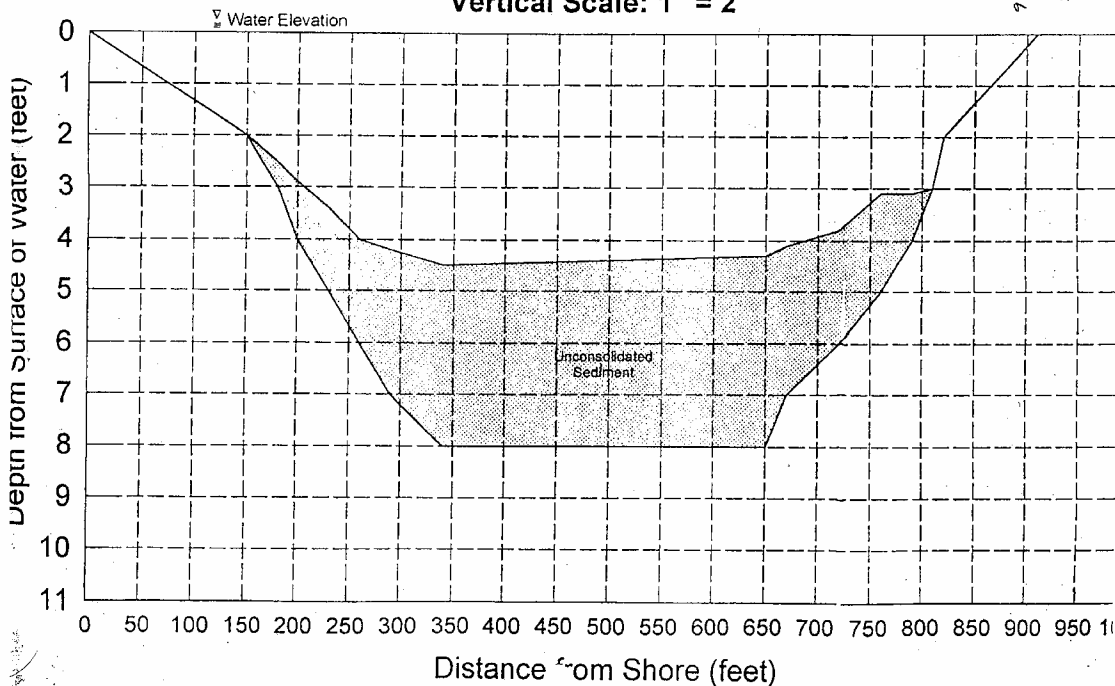
SCALE AS NOTED
PROJECT NO. 97-137-02
DRAWING NO.
SHEET NO.
CADD NAME
300011

Cross Section A-A

Horizontal Scale: 1" = 100'

Vertical Scale: 1" = 2'

97-144-034-0
50617

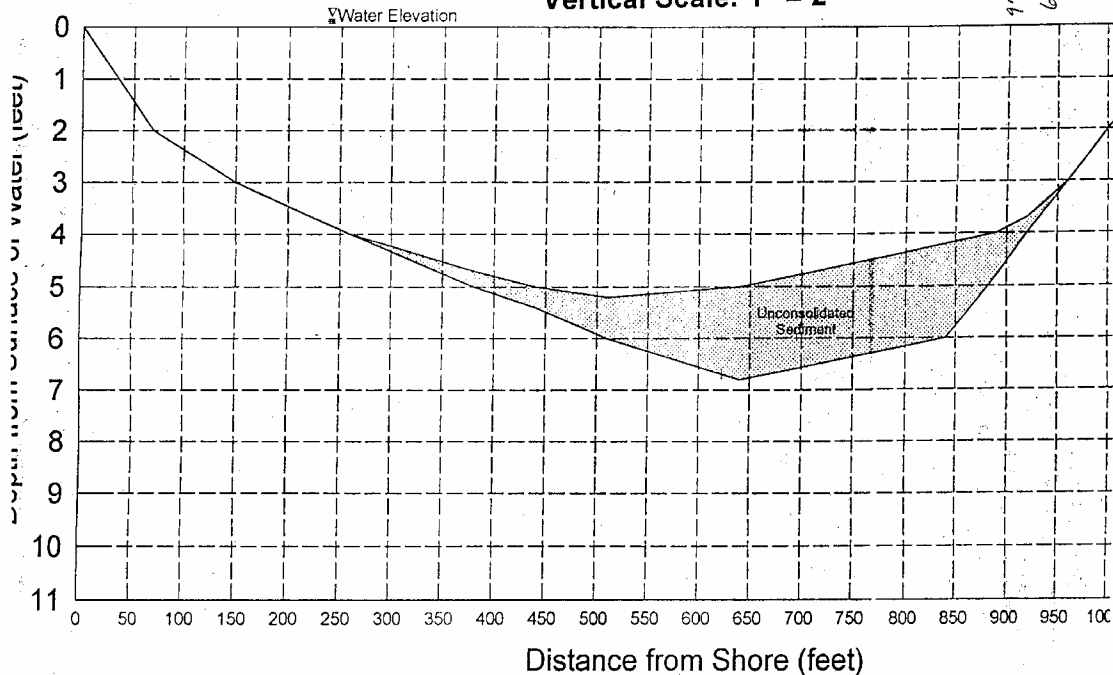


CROSS SECTION B-B

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Vertical Scale: 1" = 2'

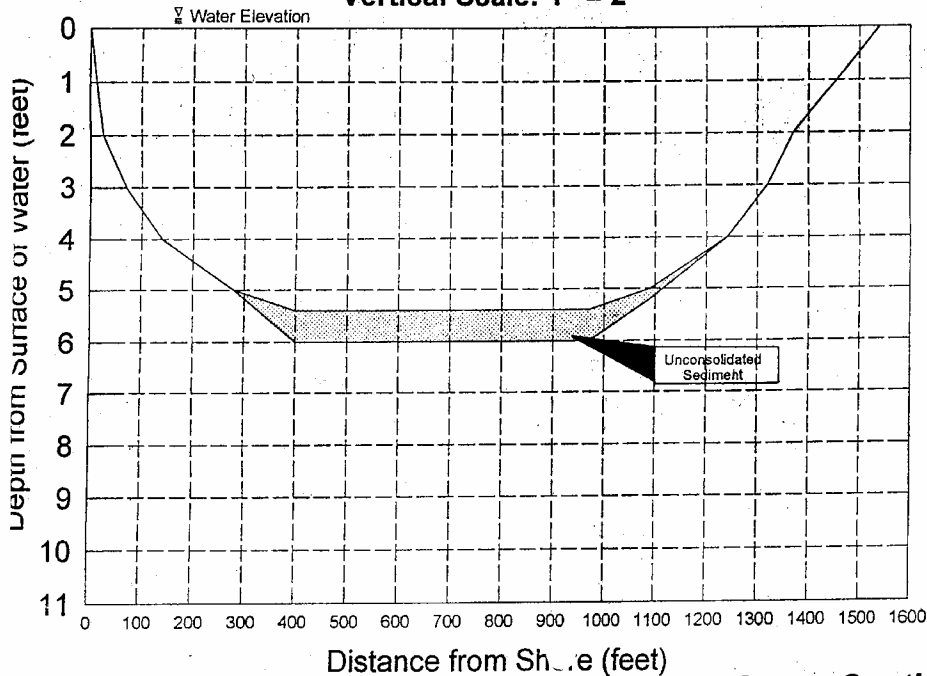
21
-44-
606
17



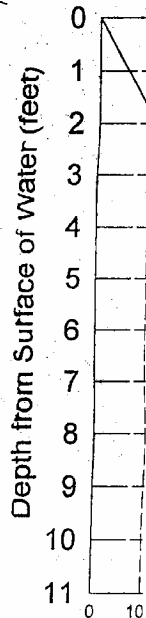
CROSS SECTION C-C

Horizontal Scale: 1" = 200'

Vertical Scale: 1" = 2'



97-144-034-0
7 of 17



Cross Section E-E

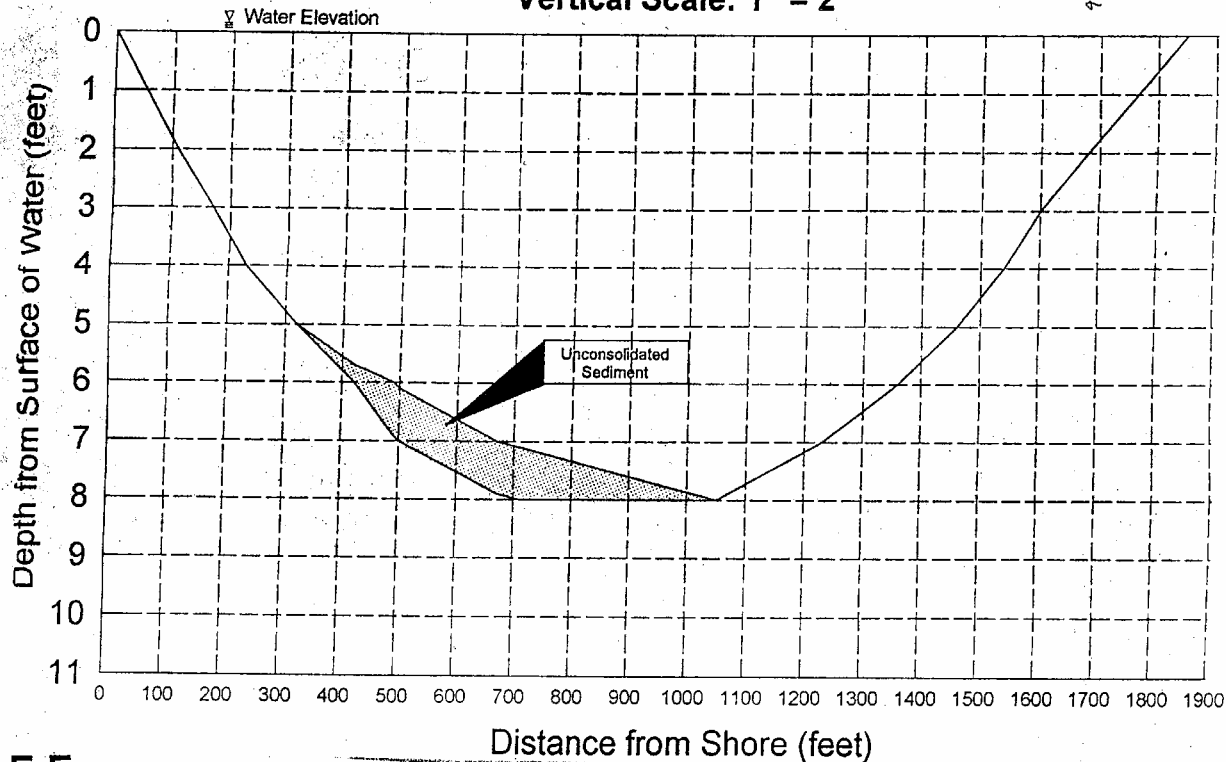
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Horizontal Scale: 1" = 200'

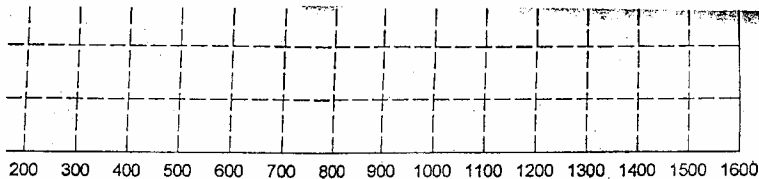
Vertical Scale: 1" = 2'

97-144-031-0

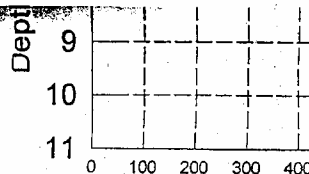
8/6/17



E-E



Distance from Shore (feet)



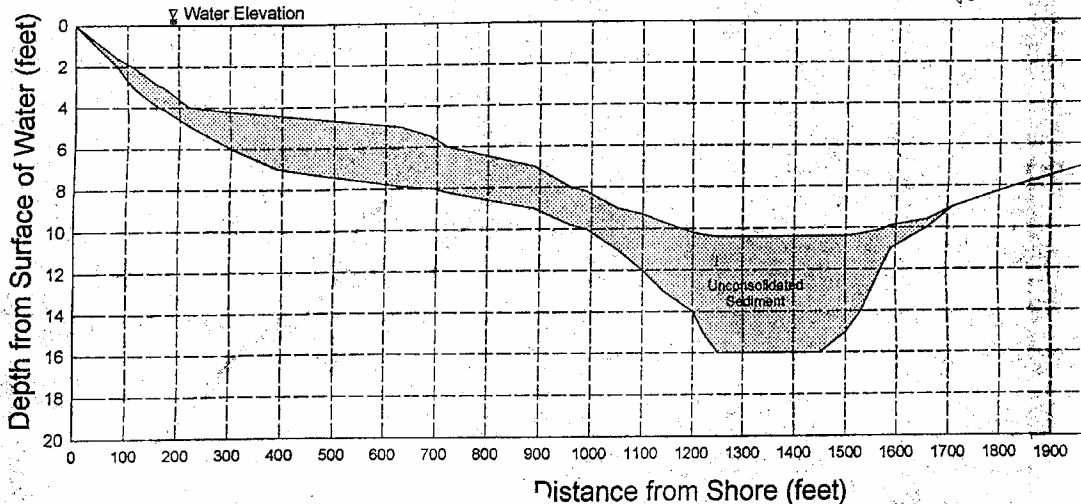
Cross Section E-E

Horizontal Scale: 1" = 200'

Vertical Scale: 1" = 5'

99-144-034-0

906 17



Cross Section F

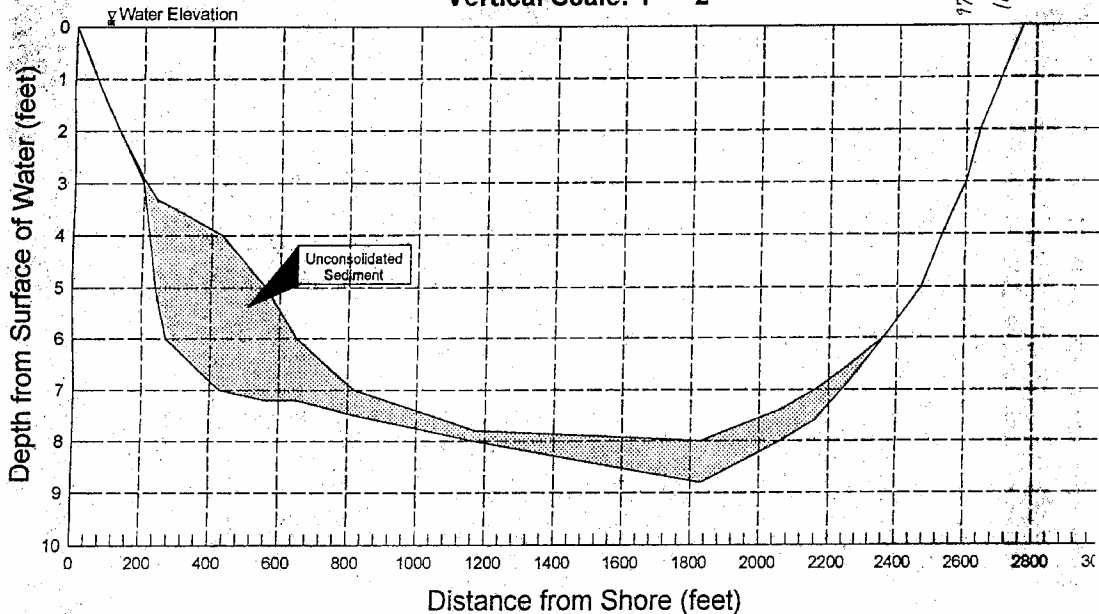
Distance from Shore (feet)

Cross Section F-F

Horizontal Scale: 1" = 300'

Vertical Scale: 1" = 2'

97-144-034-0
10 of 17



DRAWN BY

M.R.M.

CHECKED BY

D.L.H.



Francis X. Browne

SHIPSHE
IMPROV

NEWBURY TOWNSHIP

RETURN WATER DISCHARGE LINE
APPROX. 700 IL

EXISTING SWALE WILL
DIVERT WATER FROM
ENTERING PROJECT SITE

existing farm lane

SEDIMENT
AREA (ONC
IS FILLED, USE
STOCKPILE
INSTALL :
878 AS S

SEDIMENT DEWATERING AREA
AND CONTRACTOR OFFICE AREA

RIPRAP BASIN

FOURTH OF JULY AVENUE

PIPELINE FROM DREDGE

STONE FILTER BERM

VACATION WAY

SHIPSHAWANA
LAKE

SITE PLAN

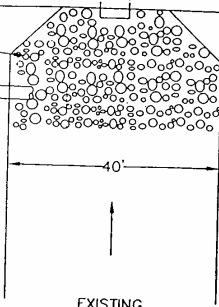
SCALE: 1"=100'

97-144-034-0
12-6-17

FOURTH OF JULY AVENUE

R-2 RIPRAP PLACED ON GEOTEXTILE FABRIC

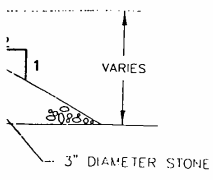
RETURN WATER DISCHARGE LINE



R-2 RIPRAP = 1.5" D50
3" MAX.
1" MIN.

EXISTING CHANNEL

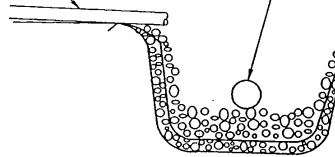
PLAN VIEW



RETURN WATER DISCHARGE LINE

24" Ø CMP TO SHIPSHEWANA LAKE

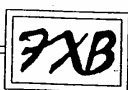
GEOTEXTILE FABRIC



SECTION

RIPRAP BASIN

N.T.S.



F. X. BROWNE, INC.

ENGINEERS

PLANNERS

SCIENTISTS

LANSDALE, PA

MARSHALLS CREEK, PA

SARANAC LAKE, NY

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DATE	ENGR.

DESIGN
CHECKED
DRAWN
CHECKED
DATE

97-144-034-0

13817

NOTE:
 TOPOGRAPHIC SURVEY OF SHIPSHEWANA ELEMENTARY SCHOOL
 POND SW 1/4, SECTION 10-37-8 NEWBURY TWP., LAGRANGE
 COUNTY, INDIANA PROVIDED BY PROGRESSIVE ENGINEERING,
 INC., 58640 STATE ROAD 15, GOSHEN, INDIANA 46526.

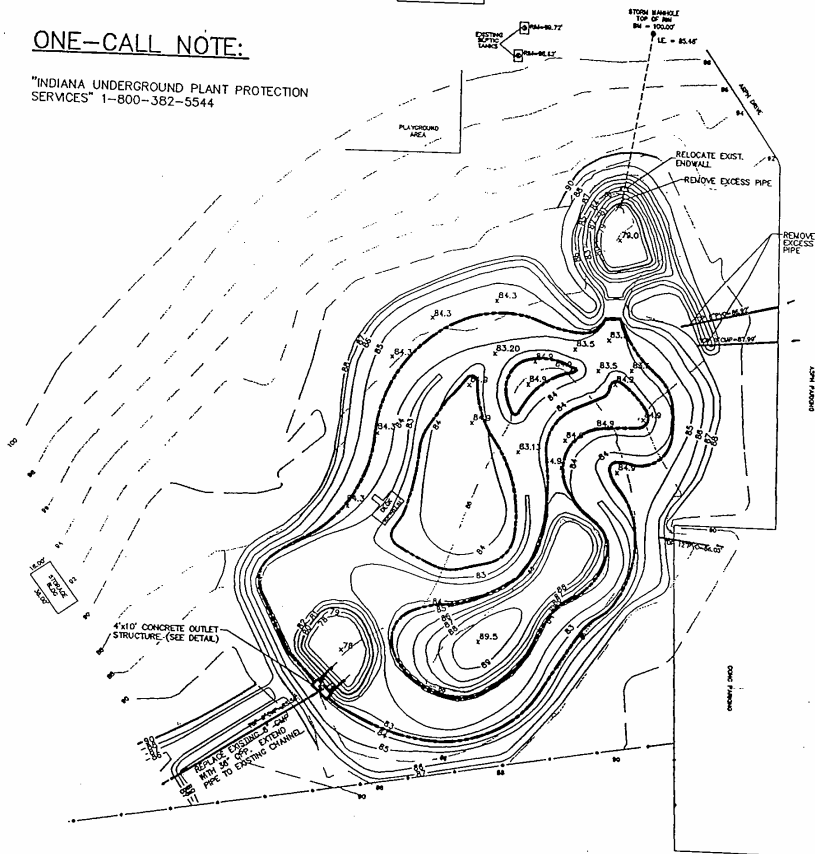
LEGEND:

- 88— PROPOSED CONTOUR
- HIGH MARSH DELINEATION
- 88— EXISTING CONTOUR

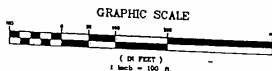
SCHOOL
 BUILDING

ONE-CALL NOTE:

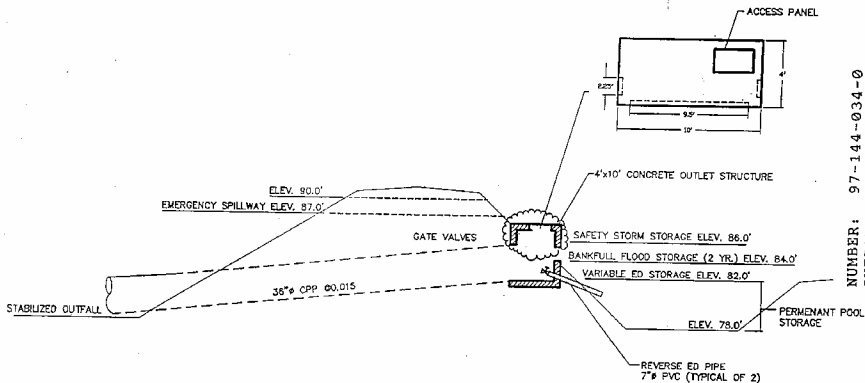
"INDIANA UNDERGROUND PLANT PROTECTION
 SERVICES" 1-800-382-5544



NUMBER: 97-144-034-0
 SHIPSHEWANA LAKE RESTORATION PROJECT
 BY: SHIPSHEWANA COMMUNITY LAKE IMPROVE
 SHIPSHEWANA LAKE, SHIPSHEWANA
 LAGRANGE COUNTY, INDIANA
 SHEET 14 OF 17



SCALE	AS NOTED	PROJECT NO.	RHS-02	DRAWING NO.	NO.	NAME	EDB-11
SHIPSHEWANA COMMUNITY LAKE IMPROVEMENT ASSOCIATION NEWBURY TOWNSHIP		LAGRANGE COUNTY, INDIANA		SHIPSHEWANA LAKE RESTORATION PROJECT SHIPSHEWANA ELEMENTARY SCHOOL CONSTRUCTED WETLANDS			
DESIGNED BY		CHECKED BY	DATE	F. X. BROWNE PROFESSIONAL ENGINEER INDIANA LICENSE NO. 9600130 DATE: 8-18-97			
DRAWN BY		CHECKED BY	DATE	SARAH L. LAKE, IN MARSHALLS CREEK, PA COPYRIGHT © 1997			
ENGINEERS		PLANNERS	SCIENTISTS	F. X. BROWNE, INC.			
LANSDALE, PA		SARAH L. LAKE, IN					



CROSS SECTION OF OUTLET BOX
SCALE: NTS

NUMBER: 97-144-034-0
SHIPSEWANA LAKE RESTORATION PROJECT
BY: SHIPSEWANA COMMUNITY LAKE IMPROVE
SHIPSEWANA LAKE, SHIPSEWANA
LAGRANGE COUNTY, INDIANA
SHEET 15-17



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MARSHALLS CREEK, PA
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SARANAC LAKE, NY

DESIGNED BY JES
CHECKED BY SKD
DRAWN BY DJM
CHECKED BY
DATE 8-18-87

F. X. BROWNE
PROFESSIONAL ENGINEER
LICENSE NO. 16500130
DATE 8-18-87

SHIPSEWANA COMMUNITY LAKE
IMPROVEMENT ASSOCIATION
NEWBURY TOWNSHIP LAGRANGE COUNTY, INDIANA

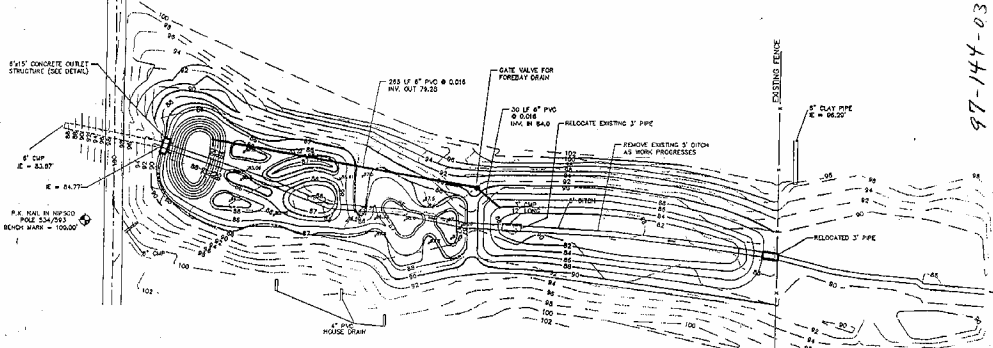
SHIPSEWANA LAKE RESTORATION PROJECT
SHIPSEWANA ELEMENTARY SCHOOL
CONSTRUCTED WETLANDS

SCALE AS NOTED
PROJECT NO. 97-144-034-0
DRAWING NO.
SHEET
CADD NAME

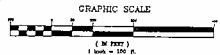
NOTE:
 TOPOGRAPHIC SURVEY OF SARA DAVIS DITCH SW 1/4,
 SECTION 10-37-8 NEWBURY TWP., LAGRANGE COUNTY,
 INDIANA PROVIDED BY PROGRESSIVE ENGINEERING, INC.
 59640 STATE ROAD 15, GOSHEN, INDIANA 46526.

LEGEND:

— 88 — PROPOSED CONTOUR
 — — — HIGH MARSH DELINEATION
 — 88 — EXISTING CONTOUR



NUMBER: 97-144-034-0
 SHIPSHEWANA LAKE RESTORATION PROJECT
 BY: SHIPSHEWANA COMMUNITY LAKE IMPROVE
 SHIPSHEWANA LAKE, SHIPSHEWANA
 LAGRANGE COUNTY, INDIANA
 SHEET 7 OF 8



97-144-034-0
 16.0.17



F. X. BROWNE, INC.

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MARSHALLS CREEK, PA

SARASOTA LAKE, NY

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DRAWN BY: JES
 CHECKED BY: SMD
 DRAWN BY: DLM
 CHECKED BY:
 DATE: 8-18-97

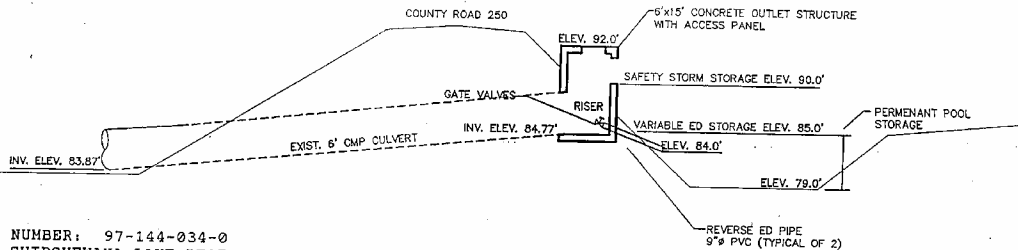
F. X. BROWNE
 PROFESSIONAL ENGINEER
 INDIANA LICENSE NO. 9600130
 DATE: 8-18-97

SHIPSHEWANA COMMUNITY LAKE
 IMPROVEMENT ASSOCIATION
 NEWBURY TOWNSHIP LAGRANGE COUNTY, INDIANA

SHIPSHEWANA LAKE RESTORATION PROJECT
 SARA DAVIS DITCH
 CONSTRUCTED WETLANDS

SCALE: AS NOTED
 PROJECT NO.: 97-144-034-02
 DRAWING NO.:
 SHEET NO.:
 CADD NAME: DAWSON

97-144-034-0
17 of 17



NUMBER: 97-144-034-0

SHIPSHEWANA LAKE RESTORATION PROJECT

BY: SHIPSHEWANA COMMUNITY LAKE IMPROVE

SHIPSHEWANA LAKE, SHIPSHEWANA

LAGRANGE COUNTY, INDIANA

SHEET 8 OF 8

OUTLET STRUCTURE DETAIL

SCALE: NTS



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DESIGNED BY: JES
CHECKED BY: SKD
DRAWN BY: D.M.
CHECKED BY:
DATE: 8-18-97

F. X. BROWNE
PR. JUAL ENGINEER
INDIAN. JENSE NO. 9600130
DATE: 8-18-97

SHIPSHEWANA COMMUNITY LAKE
IMPROVEMENT ASSOCIATION
NEWBURY TOWNSHIP
LAGRANGE COUNTY, INDIANA

SHIPSHEWANA LAKE RESTORATION PROJECT
SARA DAVIS DITCH
CONSTRUCTED WETLANDS

SCALE: AS NOTED
PROJECT NO. B11337-02
DRAWING
SHEET 8
DADO NAME



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We make Indiana a cleaner, healthier place to live

Frank O'Bannon
Governor

February 23, 1998

100 North Senate Avenue
P.O. Box 6015
Indianapolis, Indiana 46206-6015
Telephone 317-232-8603
Environmental Helpline 1-800-451-6027

John M. Hamilton
Commissioner

VIA CERTIFIED MAIL P 126 007 929

Mr. Thomas E. Allenson
Permit Evaluation Section A, Regulatory Branch
Construction-Operations Division, Detroit District Corps of Engineers
Box 1027
Detroit, Michigan 48231

Dear Mr. Allenson:

Re: Section 401 Water Quality Certification
Project: Shipshewana Lake and
Wetland Enhancement
IDEM ID Number: 97-44-BAC-00095-A
COE ID Number: 97-144-034-OA
County: Lagrange

Office of Water Management staff have reviewed the project described in the Public Notice for file number 97-144-034-OA dated December 17, 1998, for Section 401 Water Quality Certification. The applicant proposes to discharge fill associated with hydraulic dredging 350,000 cubic yards of sediment from 200 acres of Shipshewana Lake with contained disposal on adjacent upland farm fields; settled water from the disposal area would be returned through an existing culvert to Shipshewana Lake; excavation and redistribution of 1,440 cubic yards of material associated with the enhancement of 1.2 acres of existing wetland and adjoining upland for its enlargement to 2.0 acres; excavation and redistribution of 6,664 cut and 339 fill cubic yards of material from 0.10 acres of Sara Davis Ditch and adjoining upland to create 1.7 acres of wetland and pond area. The purpose of the work is to improve water quality and the recreational value of Shipshewana Lake and to create wildlife habitat and new environmental education opportunities.

Based on the site investigation conducted on January 29, 1998, and available information, it is the judgment of this office that the proposed project will comply with the applicable provisions of 327 IAC 2 and Sections 301, 302, 303, 306, and 307 of the Clean Water Act if the applicant complies with the conditions set forth below. Therefore, subject to the following conditions, the Indiana Department of Environmental Management (IDEM) hereby grants Section 401 Water Quality Certification for the project described in the Public Notice for File Number 97-144-034-OA dated December 17, 1998. Any changes in project design or scope not detailed in the application described above are not authorized by this certification.

97-144-034-OA
FEB 27 PM 1:35
RECEIVED

General Conditions:

1. Physical disturbance of banks, soils, and vegetation shall be limited to that which is absolutely necessary to achieve the project purpose.
2. The contractor performing the actual operations must comply with Section 311 of the Federal Clean Water Act and with 327 IAC 2-6 (formerly Indiana Stream Pollution Control Board Regulation 330 IAC 1-6-1) concerning spills of oil and hazardous materials.
3. Deposition of dredged or excavated materials shall be carried out in such a manner that sediment run off to any water body is controlled. Areas used for deposition of dredged materials shall be diked or bermed. The dredged or excavated material shall be stabilized with seed and straw mulch upon completion of construction activities.
4. Appropriate erosion control methods shall be installed prior to any soil disturbance to prevent soil from leaving the construction site. Appropriate erosion control methods include, but are not limited to, straw bale barriers, silt fencing, erosion control blankets, phased construction sequencing, and earthen berms. Information and assistance regarding control of construction-related soil erosion are available from the Soil and Water Conservation District offices, collocated with the local field office of the USDA Natural Resources Conservation Service in each county, and the regional field offices of the Indiana Department of Natural Resources' Division of Soil Conservation, whose administrative office is at 402 W. Washington Street, Room W264, Indianapolis, IN 46204.

Project-Specific Conditions:

1. The project engineer at the construction site will ensure that construction limits shown in the plans attached to the correspondence of will be clearly marked at all times during construction.
2. The project engineer at the construction site will ensure that all erosion control structures and devices will be regularly monitored and maintained, especially after rain events, until all soils disturbed by construction activities have been permanently stabilized.
3. Physical disturbance of banks, submerged vegetation and riparian vegetation, especially large trees which provide shade to Shipshewana Lake, the Sara Davis Ditch, and wetlands associated with the project, should be limited to that which is absolutely necessary to the conduct of the project.
4. All attempts should be made to avoid and minimize impacts to wetlands.

Dredging should not impact the wetlands in and adjacent to Shipshewana Lake. Dredged material should be deposited on upland.

5. The wetland planting plan and success criteria shall be consistent with the plan submitted to this office attached to the correspondence sent by Ms. Donna Hegge of F.X. Browne, Inc. dated February 2, 1998.

This certification is effective 18 days from the mailing of this notice unless a petition for review and a petition for stay of effectiveness are filed within this 18 day period. If a petition for review and a petition for stay of effectiveness are filed within this period, any part of the permit within the scope of the petition for stay is stayed for 15 days, unless or until an Environmental Law Judge further stays the permit in whole or in part.

This decision may be appealed in accordance with IC 4-21.5, the Administrative Orders and Procedures Act. The steps that must be followed to qualify for review are:

1. You must petition for review in a writing that states facts demonstrating that you are either the person to whom this decision is directed, a person who is aggrieved or adversely affected by the decision, or a person entitled to review under any law.
2. You must file the petition for review with the Office of Environmental Adjudication (OEA) at the following address:

Office of Environmental Adjudication
ISTA Building
150 West Market Street
Suite 618
Indianapolis, IN 46204

3. You must file the petition within eighteen (18) days of the mailing date of this decision. If the eighteenth day falls on a Saturday, Sunday, legal holiday, or other day that the OEA offices are closed during regular business hours, you may file the petition the next day that the OEA offices are open during regular business hours. The petition is deemed filed on the earliest of the following dates: the date it is personally delivered to OEA; the date that the envelope containing the petition is postmarked if it is mailed by United States mail; or, the date it is shown to have been deposited with a private carrier on the private carrier's receipt, if sent by private carrier.

Identifying the permit, decision, or other order for which you seek review by permit number, name of the applicant, location, or date of this notice will expedite review of the petition.

Note that if a petition for review is granted pursuant to IC 4-21.5-3-7, the petitioner will, and any other person may, obtain notice of any prehearing conferences, preliminary hearings,

hearings, stays, and any orders disposing of the proceedings by requesting copies of such notices from OEA.

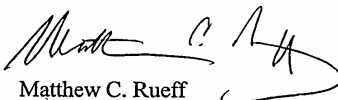
Granting of Section 401 Water Quality Certification does not relieve the applicant from the responsibility of obtaining any other permits or authorizations that may be required for this project or related activities from IDEM or any other agency or person.

Failure to comply with the Section 401 Water Quality Certification may result in enforcement action against the applicant.

If you have any questions about this certification, please contact Mr. Brett A. Crump, Project Manager, of my staff at 317/233-2475, or you may contact OWM through the IDEM Environmental Helpline (1-800-451-6027).

If you have procedural questions regarding filing a petition for review you may contact OEA at 317-232-8591.

Sincerely,



Matthew C. Rueff
Assistant Commissioner
Office of Water Management

cc: Mr. David Hudak, USFWS

Mr. Steve Jose, IDNR

Shipshewana Community Lake Improvement
3485 North 980 West
Shipshewana, IN

F.X. Browne, Inc.
Attn: Ms. Donna L. Hegge
P.O. Box 401
Lansdale, PA 19446

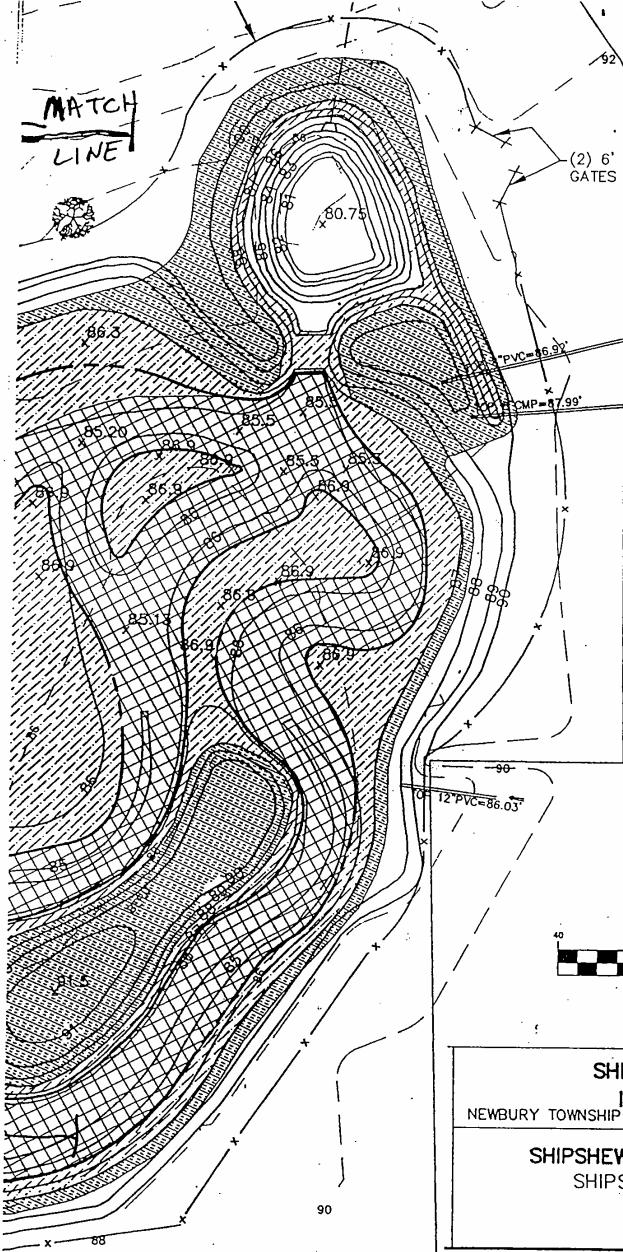
Mr. & Mrs. Bob & Carolyn Butler
R#3, 114 Willow Run Drive
Monroeville, IN 46773

VIA CERTIFIED MAIL


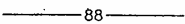


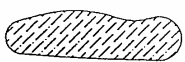



CERTIFIED

P 126 007 929





LEGEND:

-  TREE
-  PROPOSED CONTOUR
-  HIGH MARSH DELINEATIC
-  EXISTING CONTOUR
-  HIGH MARSH PLANTING
-  LOW MARSH PLANTING
-  SEMI-WET PLANTING
-  PROPOSED FENCE

GRAPHIC SCALE



(IN FEET)
1 inch = 40 ft

**SHIPSHEWANA COMMUNITY LAKE
IMPROVEMENT ASSOCIATION**

NEWBURY TOWNSHIP LAGRANGE COUNTY, IN

SHIPSHEWANA LAKE RESTORATION PROJECT
SHIPSHEWANA ELEMENTARY SCHOOL
CONSTRUCTED WETLANDS
LANDSCAPE PLANTING PLAN

PLAYGROUND
AREA

MATCH
LINE

EXISTING TREES SHALL
BE RELOCATED AS SHOWN

3 FT. WIDE GATE

RELOCATED
EXISTING DECK

18.00
5' STORAGE
BLOG
36.00

79.75

TOP 8" C/P 85.54

22

AREA	SPECIES	NUMBER of PLANTS
LOW MARSH AREA	Duck Potato	<i>Sagittaria latifolia</i> 5,808 units
	Pickersweed	<i>Pontederia cordata</i> 5,808 units
	Arrow Arum	<i>Peltandra virginica</i> 1,936 units
	Softstem Bulrush	<i>Scirpus validus</i> 1,936 units
	Wild Rice	<i>Zizania aquatica</i> 1,936 units
HIGH MARSH AREA	Softstem Bulrush	<i>Scirpus validus</i> 5,808 units
	Common Three-Square	<i>Scirpus pungens</i> 5,808 units
	Reed Canary Grass	<i>Phalaris arundinacea</i> 1,936 units
	Blue Flag Iris	<i>Iris versicolor</i> 1,936 units
	Rice Cutgrass	<i>Leersia oryzoides</i> 1,936 units
SEMI-WET AREA	Soft Rush	<i>Juncus effusus</i> 2,178 units
	Woolgrass	<i>Scirpus cyperinus</i> 2,178 units

GENERAL NOTES

- All nursery plantings shall be at 2.5 feet on center.
- All wetland plantings shall be as specified herein or as recommended by the nursery specialist.
 - Eighty-five percent (85%) survival rate must be achieved by the end of the first full growing season after construction is completed.
 - The vegetative nursery stock shall be delivered on a date scheduled to coincide with planting. All individual species shall be planted on the delivery date and any consecutive days required thereafter.
 - Any plant species purchased from a wetland nursery shall be stored, before and during planting, in a manner that shall not decrease their survivability, i.e. stored in a cool, moist place for not more than a few days.
 - All plant species shall be planted according to the specifications and at the locations shown on the planting plan. All plant species shall be fertilized according to the fertilization specifications.
- All disturbed areas not otherwise designated for nursery plantings shall receive the following seed mixture at 50 lbs/acre by machine on a calm day. In the event that planting must be done by hand, only an experienced planter shall distribute the seed. The seed mixture may be formulated by various distributors. Pure live seed shall be delivered in original containers showing analysis of seed mixture, percentage of pure live seed, year of production, net weight, and date of packaging. Damaged packages shall not be accepted. The seed mixture shall include:

Red Top	<i>Agrostis alba</i>	10 lbs/acre
Rough Bluegrass	<i>Poa trivialis</i>	10 lbs/acre
Deertongue	<i>Panicum clandestine</i>	10 lbs/acre
Meadow Foxtail	<i>Alapecuris pratensis</i>	10 lbs/acre
Annual Ryegrass	<i>Lolium multiflorum</i>	10 lbs/acre
- Fertilizer for nursery stock only shall be nine gram Agriform slow-release fertilizer tablets (22%N - 8%P - 2%K) at an application rate of one tablet per plant installed. All seeded areas shall receive 10%N - 10%P - 10%K fertilizer at a rate of 600 lbs/acre.
- Straw mulch shall be free of growth or germination inhibiting ingredients, and shall be applied over the seeded area at a rate of 1.7 tons/acre, immediately after seeding.
- Jute matting shall consist of undyed jute yarn, woven into a uniform plain weave mesh with approximately 1-inch openings, weighing not less than 90 pounds per 100 square yards. The terminal ends of the jute matting shall be buried to a minimum depth of 12-inches vertically into an anchor slot dug into the soil. Hardwood stakes shall be implemented at 4 foot centers throughout and along all overlaps.

DATE: 8-18-97

N.T.S.

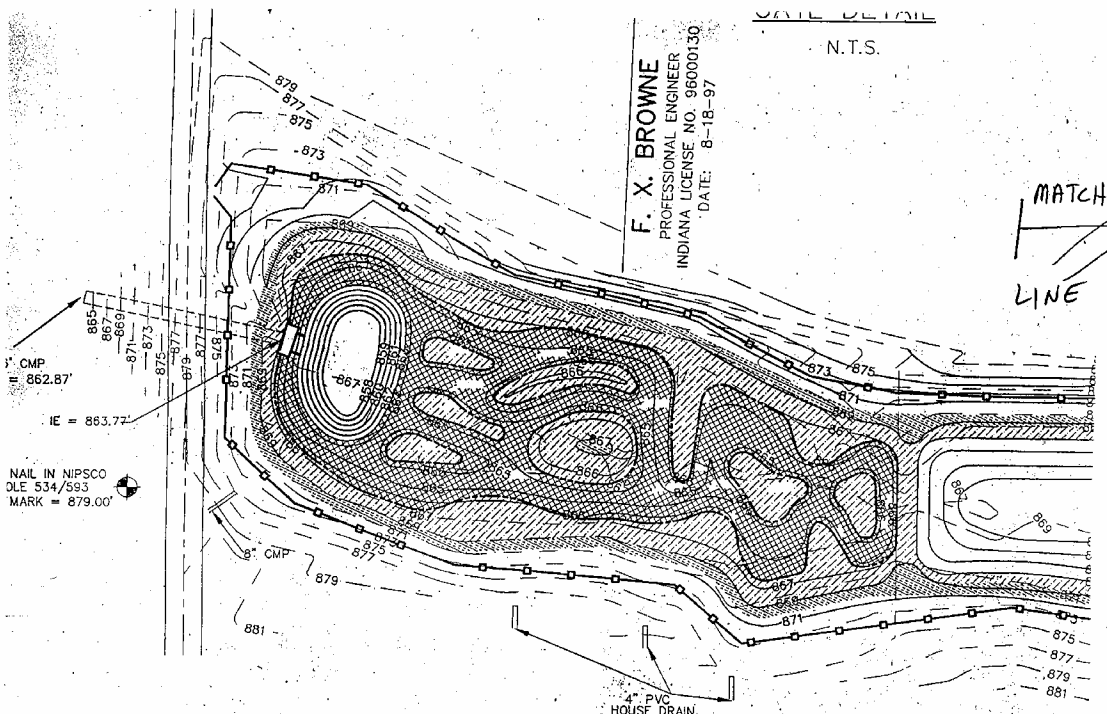
F. X. BROWNE
PROFESSIONAL ENGINEER
INDIANA LICENSE NO. 96000130
DATE: 8-18-97

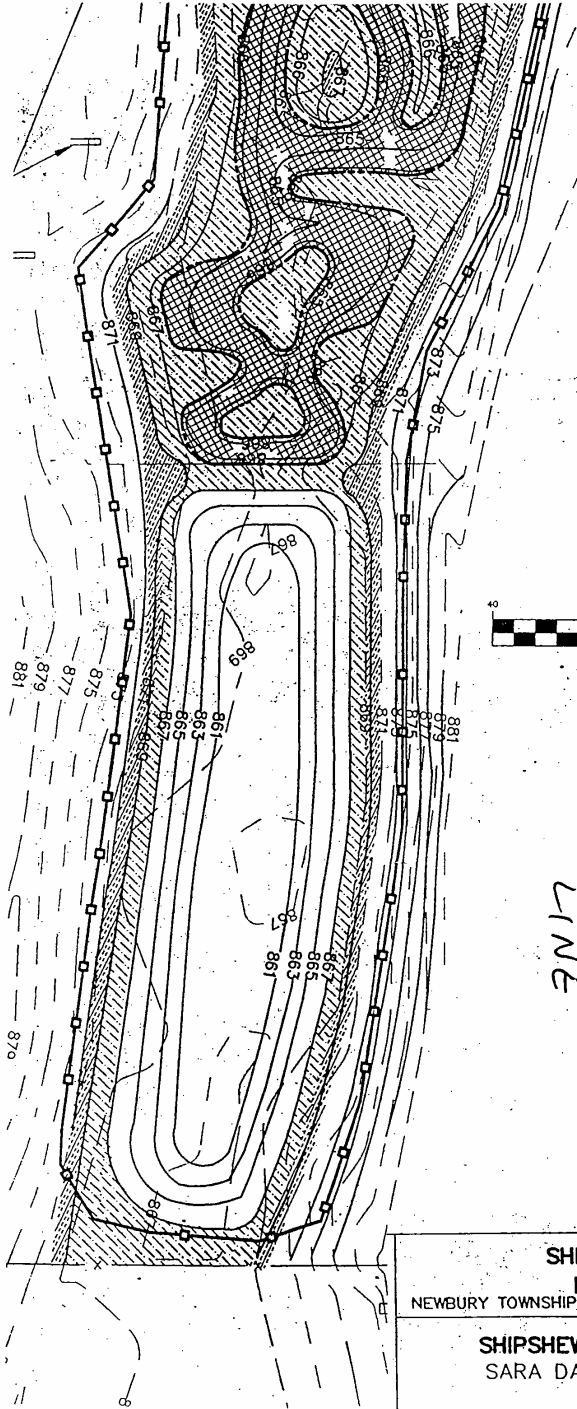
MATCH
LINE

1" CMP
= 862.87'
IE = 883.77'

NAIL IN NIPSCO
OLE 534/593
MARK = 879.00'

4" PVC
HOUSE DRAIN

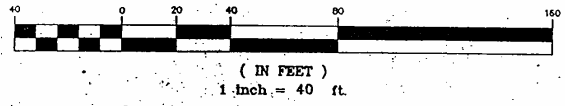




LEGEND:

- 88 PROPOSED CONTOUR
- HIGH MARSH DELINEATION
- 88 EXISTING CONTOUR
- HIGH MARSH PLANTING
- LOW MARSH PLANTING
- SEMI-WET PLANTING
- PROPOSED FENCING

GRAPHIC SCALE



MATCH
LINE

FE
END POST

**SHIPSHEWANA COMMUNITY LAKE
IMPROVEMENT ASSOCIATION**
NEWBURY TOWNSHIP LAGRANGE COUNTY

SHIPSHEWANA LAKE RESTORATION PROJECT
SARA DAVIS DITCH CONSTRUCTED WETLAND

LANDSCAPE PLANTING PLAN

AREA	SPECIES		NUMBER of PLANTS
LOW MARSH AREA	Duck Potato	<i>Sagittaria latifolia</i>	1,893 units
	Pickersweed	<i>Pontederic cordata</i>	1,893 units
	Arrow Arum	<i>Peltandaria virginica</i>	631 units
	Softstem Bulrush	<i>Scirpus validus</i>	631 units
	Wild Rice	<i>Zizania aquatica</i>	631 units
HIGH MARSH AREA	Softstem Bulrush	<i>Scirpus validus</i>	1,888 units
	Common Three-Square	<i>Scirpus pungens</i>	1,888 units
	Reed Canary Grass	<i>Phalaris arundinacea</i>	629 units
	Blue Flag Iris	<i>Iris versicolor</i>	629 units
	Rice Cutgrass	<i>Leersia oryzoides</i>	629 units
SEMI-WET AREA	Soft Rush	<i>Juncus effusus</i>	5,140 units
	Woolgrass	<i>Scirpus cyperinus</i>	5,140 units

GENERAL NOTES

- All nursery plantings shall be at 2.5 feet on center.
- All wetland plantings shall be as specified herein or as recommended by the nursery specialist.
 - Eighty-five percent (85%) survival rate must be achieved by the end of the first full growing season after construction is completed.
 - The vegetative nursery stock shall be delivered on a date scheduled to coincide with planting. All individual species shall be planted on the delivery date and any consecutive days required thereafter.
 - Any plant species purchased from a wetland nursery shall be stored, before and during planting, in a manner that shall not decrease their survivability, i.e. stored in a cool, moist place for not more than a few days.
 - All plant species shall be planted according to the specifications and at the locations shown on the planting plan. All plant species shall be fertilized according to the fertilization specifications.
- All disturbed areas not otherwise designated for nursery plantings shall receive the following seed mixture at 50 lbs/acre by machine on a calm day. In the event that planting must be done by hand, only an experienced planter shall distribute the seed. The seed mixture may be formulated by various distributors. Pure live seed shall be delivered in original containers showing analysis of seed mixture, percentage of pure live seed, year of production, net weight, and date of packaging. Damaged packages shall not be accepted. The seed mixture shall include:

Red Top	<i>Agrasitis alba</i>	10 lbs/acre
Rough Bluegrass	<i>Poa trivialis</i>	10 lbs/acre
Deertongue	<i>Panicum clandestine</i>	10 lbs/acre
Meadow Foxtail	<i>Alopecurus pratensis</i>	10 lbs/acre
Annual Ryegrass	<i>Lolium multiflorum</i>	10 lbs/acre
- Fertilizer for nursery stock only shall be nine gram AgriForm slow-release fertilizer tablets (22%N - 8%P - 2%K) at an application rate of one tablet per plant installed. All seeded areas shall receive 10%N - 10%P - 10%K fertilizer at a rate of 600 lbs/acre.
- Straw mulch shall be free of growth or germination inhibiting ingredients, and shall be applied over the seeded area at a rate of 1.7 tons/acre, immediately after seeding.
- Jute matting shall consist of undyed jute yarn, woven into a uniform plain weave mesh with approximately 1-inch openings, weighing not less than 90 pounds per 100 square yards. The terminal ends of the jute matting shall be buried to a minimum depth of 12-inches vertically into an anchor slot dug into the soil. Hardwood stakes shall be implemented at 4 foot centers throughout and along all overlaps.

Your signature below, as permittee, indicates that you accept and agree to comply with the terms and conditions of this permit.

(PERMITTEE)

(DATE)

This permit becomes effective when the Federal official, designated to act for the Secretary of the Army, has signed below.

John Konik for:
(DISTRICT ENGINEER)

(DATE)

Thomas C. Haid
Lieutenant Colonel, U.S. Army

When the structures or work authorized by this permit are still in existence at the time the property is transferred, the terms and conditions of this permit will continue to be binding on the new owner(s) of the property. To validate the transfer of this permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.

(TRANSFEREE)

(DATE)

APPENDIX B-5

NOI LETTER, PUBLIC NOTICE AND CERTIFICATION STATEMENT



Indiana Department of Environmental Management
Notice of Intent (NOI)
Storm Water Runoff Associated with Construction Activity
NPDES General Permit Rule 327 IAC 15-5 (Rule 5)

Submission of this Notice of Intent letter constitutes notice that the operator is applying for coverage under the National Pollutant Discharge Elimination System (NPDES) General Permit Rule for Storm Water Discharges Associated with Construction Activity (see 327 IAC 15-2-5 (c) for definition of operator). Permitted operators are required to comply with all terms and conditions of the General Permit Rule 327 IAC 15-5 (Rule 5).

Construction Project:

Name: Shipshewana Lake Restoration Project County: LaGrange

SIC Code or Description of Project: Hydraulic Dredging
Sediment dewatering and disposal

Location: A field west of Shipshewana Lake

Operator Name: Mike Martin, Association President Phone: 219/768-4541

Company Name: Shipshewana Community Lake Improvement Association

Complete Address: 3485 North 98th West, Shipshewana, IN 46565

Contact Person (if different from above): Donna Hegge, F. X. Browne, Inc.

Complete Address (if different from above): 1101 South Broad Street, P.O. Box 401

Lansdale, PA 19446

Phone: 215/362-3878

Affiliation with operator: Consulting Firm

Ownership Status: (check one) Federal ☐ State ☐ Public (other than Federal or State) ☐

Private ☒ Other ☐

Location: Latitude & Longitude 41°41'15"/85°37'

Or

Quarter

Section

Township

Range

Name of Receiving Water (and if applicable, name of municipal operator of storm sewer):
Shipshewana Lake

Please note: Even if a retention pond is present on the property, the name of the nearest possible receiving water is required.

Acres: Total acres: 10.3

Acres to be Disturbed: 8.6

Timetable: Start Date: 4/98

Estimated End Date: 12/31/98

Please note: The operator is responsible for all construction activities within the boundaries of the project until all construction is complete. If individual lots are to be sold within a subdivision or commercial park, the operator should consider developing contractual agreements to bind lot buyers and builders to compliance with the Soil Erosion Control Plan established by the operator, and to indemnify the operator for any violations. An example of a contractual clause of this nature may be obtained by contacting IDEM, Office of Water Management, Rule 5 Desk at 317/232-8760.

State Form 47487 (1-96)

(Continued on Reverse Side)

Exclusions From Coverage Under the General Permit:

1. Storm water discharges excluded by any provision of 327 IAC 15-2-3
2. Storm water discharges to an outstanding state resource water as listed in 327 IAC 2-1-2(3) or to an exceptional use resource water defined in 327 IAC 2-1-11(b)

Soil Erosion Control Plan Certification:

By signing this Notice of Intent letter, I, the operator, certify the following:

- A. The erosion control measures included in the Soil Erosion Control Plan comply with the requirements of 327 IAC 15-5-7 and 15-5-9 and the plan complies with applicable state, county, and local erosion control requirements;
- B. The erosion control measures will be implemented in accordance with the plan;
- C. The appropriate state, county, or local erosion control authority and the county Soil and Water Conservation District (SWCD) office have been sent a copy of the erosion control plan for review; and
- D. Implementation of the erosion control measures will be conducted by personnel trained in erosion control practices.

Operator Responsibility Statement:

By signing this Notice of Intent letter, I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature of Operator

Michael D. Martin

Date

3-30-98

In addition to this form, completed in full, please submit the following:

- ☒ proof of publication in a newspaper of general circulation in the affected area notifying the public that a construction activity is to commence, including the start date, end date, and location of the project, and the name and address or phone number of the contact person;
- ☒ \$100 check or money order payable to the Indiana Department of Environmental Management.
3-28-98 check #322

Mail to: Indiana Department of Environmental Management
Office of Water Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, IN 46206-6015
Attention: Permits Section, Storm Water Desk

Questions regarding Soil Erosion Control Plan development or implementation may be directed to your local SWCD or Department of Natural Resources office. Questions regarding the Notice of Intent may be directed to the Rule 5 contact person at 317/232-8760 or 800/451-6027. The NOI should be submitted only after your Soil Erosion Control Plan has been submitted to your local SWCD. Any person initiating earth disturbing activity before submittal of the Erosion Control Plan, the NOI, and the \$100 filing fee is considered to be operating without a permit and subject to enforcement and penalty under IC 13-7-10-5, IC 13-7-12, IC 13-7-11, or any combination thereof.

Proof of Publication

COPY

ported via a pipeline to a sedimentation/disposal basin. The basin will be constructed on approximately 24 acres of agricultural land on the western side of Shipshewana Lake. After the sediments have settled out of the slurry, the clean water in the basin will be returned to the lake. When dredging is complete, the sedimentation/disposal basin will be allowed to dry out and then will be regraded and returned to agricultural land.

Questions Relating to the Project:
FX, Brown, Inc., Donna L. Hagg,
P.O. Box 401, Lansdale, PA 19446,
(215) 362-3878.

Requests for Hearings: You may request an informal public hearing, pre-AOPA (Administrative Orders and Procedures Act) hearing on this application by filing a petition with the Division of Water. The petition must conform to administrative rule 310IAC 0.6 as follows: (a) This section establishes the requirements for a petition to request a public hearing under IC 14-11-4-5 (a)(2). (b) The petition shall include the signatures of at least twenty-five (25) individuals who are at least eighteen (18) years of age and who reside in the county where the licensed activity would take place or who own real property within one (1) mile of the site of the proposed or existing licensed activity. (c) The complete mailing addresses of the petitioners shall be typed or printed legibly on the petition. (d) Each individual who signs the petition shall affirm that the individual qualifies under subsection (b).

A pre-AOPA public hearing on the application will be limited to the Department's authority under the permitting statutes. Only the issues relevant to the Department's jurisdiction directly related to this application for construction will be addressed. Under permitting statutes, the Department has no authority in zoning, local drainage, burning, traffic safety, etc.; therefore, topics beyond the Department's jurisdiction will not be discussed during the public hearing. You may also request when an initial determination is made to issue or deny the permit. Following the receipt of the post action review of the determination by the Natural Resources Commission under IC 14-21-5 and 310 IAC 0.6.

A request for a pre-AOPA public hearing or notice of initial determination should be addressed to:

Permit Administration Section
Division of Water
Dept. of Natural Resources
402 W. Washington St., Room 3264
Indianapolis, Indiana 46204-2749
Telephone: (317) 233-5635

PUBLIC NOTICE

To All Concerned:
Indiana's IC 14-11-4 was enacted to ensure that adjacent property owners are notified of permit applications and are provided with an opportunity to present their views to the Department of Natural Resources prior to action.

Applicant: Shipshewana Community Lake Improvement Association
Lake Name: Shipshewana Lake
Relevant Statute: Lake Preservation Act, IC 14-26-2

Project Description and Location: Shipshewana Lake contains an excessive amount of sediment. Excessive sedimentation results in accelerated silt aging (eutrophication). Eutrophication is caused by nutrient and sediment loading to the lake from increased stormwater runoff from lawns, construction sites, farm fields and streets. This situation causes excessive algae and aquatic weed growth in the lake, which negatively effects lake ecology and recreational potential. To manage this environmental problem, Shipshewana Lake will be hydraulically dredged. Dredging is the digging out of silt, accumulated sediment as well as the pollutants adhering to the sediment. The sediment is pumped out of the lake bottom in a slurry and is trans-

STATE OF INDIANA, } ss:
Elkhart County,

I, Pam Sheets being duly sworn, on oath say that I am Business Office Manager of THE GOSHEN NEWS, that the same is a Daily newspaper of general circulation, printed and published in the City of Goshen, in the County and State of aforesaid; that the annexed true copy was published in said newspaper one

consecutive weeks as follows:

On the 18th day of June, 19 97

On the _____ day of _____, 19 _____

On the _____ day of _____, 19 _____

On the _____ day of _____, 19 _____

Subscribed and sworn before me this 18th day
of June, 19 97

Cheryl A. Gantner
Cheryl A. Gantner Notary Public.

Publication Fee

\$100.82

My commission expires March 23, 2001